# The Commonwealth of Massachusetts

**DEPARTMENT OF PUBLIC UTILITIES**

D.P.U. 07-71 February 29, 2008

Petition of Fitchburg Gas and Electric Light Company, pursuant to G.L. c. 164, § 94, and 220 C.M.R. §§ 5.00 et seq., for a General Increase in Electric Rates.

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# I. INTRODUCTION

## A. Procedural History

On August 17, 2007, Fitchburg Gas and Electric Light Company d/b/a Unitil ("Fitchburg" or "Company") submitted a petition to the Department of Public Utilities ("Department"), pursuant to G.L. c. 164, § 94, and 220 C.M.R. §§ 5.00 et seq., for an increase in its base rates for electric customers. The Department docketed the petition as D.P.U. 07-71 and suspended the effective date of the tariffs until March 1, 2008, for further investigation.[1] Fitchburg's last increase in base rates for its electric division was approved by the Department on December 2, 2002. Fitchburg Gas and Electric Light Company, D.T.E. 02-24/25 (2002).

Fitchburg is a wholly-owned subsidiary of Unitil Corporation ("Unitil"), a public utility holding company (Exh. Unitil-MHC-1, at 3). Unitil's principal business is the retail distribution of electricity and natural gas through its two utility subsidiaries: Unitil Energy Systems Inc. ("UES") and Fitchburg (id.). UES is an electric utility with an operating franchise in the southeastern seacoast and capital city areas of New Hampshire (id.). Fitchburg operates as a combination gas and electric company, with approximately 27,000 electric customers and approximately 15,000 gas customers with an operating franchise in the greater Fitchburg area of north central Massachusetts (Petition at 1; Exh. Unitil-MHC-1, at 3-4). Fitchburg's electric division serves customers in the communities of Ashby, Fitchburg, Lunenburg, and Townsend (Exh. Unitil-MHC-1, at 3-4). In addition, Unitil owns the

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[1] Fitchburg filed for approval tariffs M.D.P.U. Nos. 151 through 155.

following entities: Unitil Power Corporation; Unitil Resources, Inc.; Unitil Service Corporation ("USC"); and Unitil Realty Corporation (id. at 4-5).[2]

On September 6, 2007, the Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention pursuant to G.L. c. 12, § 11E. On September 12, 2007, the Department granted intervenor status to the low-income weatherization and fuel assistance program network, the Massachusetts Energy Directors Association ("MEDA"), and Montachusett Opportunity Council, Inc. ("MOC") (collectively "Low-Income Intervenors"), and to the Massachusetts Division of Energy Resources ("DOER"). Also on September 12, 2007, the Department granted limited participant status to The Berkshire Gas Company, NSTAR Electric Company, and NSTAR Gas Company.

Pursuant to notice duly issued, the Department held a public hearing at the Fitchburg Public Library on October 2, 2007. The Department held eight days of evidentiary hearings between November 5, 2007, and November 26, 2007. MEDA and MOC submitted a joint initial brief on December 17, 2007. The Attorney General and DOER submitted initial briefs on December 18, 2007. Fitchburg submitted its initial brief on January 4, 2008. The Attorney General submitted a reply brief on January 14, 2008. MEDA and MOC submitted a

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[2] Unitil Power Corporation is a FERC-regulated wholesale power company; Unitil Resources, Inc., provides electric and natural gas energy brokering and advisory services to large commercial and industrial customers in the northeastern United States; USC provides management services to Unitil's subsidiaries; and Unitil Realty Corporation owns Unitil's corporate office building in Hampton, New Hampshire (Exh. Unitil-MHC-1, at 4-5).

joint reply brief on January 15, 2008.[3] The Company submitted its reply brief on January 22, 2008.[4] The evidentiary record consists of 649 exhibits and 96 responses to record requests.[5]

In support of its filing, Fitchburg sponsored the testimony of four witnesses: (1) Mark H. Collin, senior vice-president, chief financial officer, and treasurer of Unitil, and treasurer of Fitchburg; (2) Samuel C. Hadaway, a principal in FINANCO, Inc.; (3) James L. Harrison, vice-president of Management Applications Consulting, Inc.; and (4) Robyn A. Tafoya, director of finance for USC.

B. Procedural Rulings

1. Attorney General Appeal of Hearing Officer Ruling

a. Introduction

During Fitchburg's redirect case on November 20, 2007, the Company submitted Exhibit Unitil-2, which outlines the types of savings associated with the advanced metering infrastructure ("AMI") system that the Company is seeking to include in rate base (see

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[3] Due to adverse weather conditions, the Department permitted MEDA and MOC to submit their joint reply brief one day late.

[4] Fitchburg submitted revised cost of service schedules and workpapers as an attachment to its reply brief. These are cited herein as, for example, Exh. Unitil-RT-1, Sch. RT-1 (Rev.).

[5] On its own motion, the Department moves into the record of this proceeding: (1) Fitchburg's revised schedules as Unitil RT-1, Sch. RT-1 (Rev.) through Unitil RT-1, Sch. RT-13 (Rev.); (2) Fitchburg's revised workpapers as Unitil RT-1, WP 3-1.1 (Rev.) through Unitil RT-1, WP 12 (Rev.); (3) Fitchburg's updated documents related to casualty and property insurance as AG 8-18 Supp.; and (4) Fitchburg's updated documents related to rate case expense as AG 10-13, 4th Supp.

Section II.A. below). On the final day of hearings, the Attorney General objected to Fitchburg's motion to admit Exhibit Unitil-2 into the record (Tr. 8, at 1027).[6] The Attorney General asserted that there had not been sufficient time to vet the numbers contained in Exhibit Unitil-2 and that there did not seem to be a basis for the Exhibit (id. at 1027-1028). The Company countered that Exhibit Unitil-2 was created in response to questions from the Department and that the Exhibit had been subject to cross-examination (id. at 1028). Fitchburg also asserted that Exhibit Unitil-2 was the type of evidence that the Department routinely allows as evidence in such proceedings (id. at 1028-1029). The hearing officer agreed with Fitchburg that the Exhibit had been subject to cross-examination and was the type of evidence typically permitted into the record as evidence (id. at 1029). The hearing officer also noted that it was appropriate to permit its inclusion into the record especially since there was an outstanding record request (RR-AG-52) for the underlying calculations (id.).[7] The Attorney General then sought to retain her right to ask follow-up questions after the Company submitted its response to RR-AG-52 (id.). The hearing officer indicated that follow-up questions could not be issued (id.).

On November 28, 2007, the Attorney General submitted an appeal asserting that the hearing officer should have permitted examination of the Company's response to RR-AG-52

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[6] The evidentiary hearings were concluded on November 26, 2007.

[7] In record request AG-52, the Attorney General asked Fitchburg "to provide all workpapers, calculations, formulas, assumptions, and supporting documentation for the calculations associated with . . . Exhibit Unitil-2" (Tr. 8, at 1020).

after the close of the hearings (Appeal at 1-2, 5).[8] As an alternative, the Attorney General asks that the Department find that the record is insufficient to support the AMI system post-test year rate base addition (id. at 5).[9]

b. Positions of the Parties

i. Attorney General

On appeal, the Attorney General notes that Exhibit Unitil-2 was submitted by the Company during redirect of the Company's witness, Mr. Collin (id. at 2). The Attorney General asserts that Exhibit Unitil-2 contains information that is significantly different from that provided by the Company in its prefiled testimony and in response to earlier cross-examination (id.). The Attorney General contends that, because the Company did not provide supporting documentation or a description of the underlying methodology relied on for the calculations in Exhibit Unitil-2, she was required to ask for the information as a record request (id.). She also asserts that the late submission of Exhibit Unitil-2 means that the Company did not allow adequate time to develop a proper evidentiary record on the issue of savings attributable to Fitchburg's AMI system (id. at 4). The Attorney General asserts that because the hearings have now ended, she will have no further opportunity to cross-examine

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[8] In her argument, the Attorney General states that "the information contained in Exhibit Unitil-2 should be stricken from the record" (Appeal at 4). Nonetheless, the petition is not framed as appealing the hearing officer's ruling to permit the inclusion of Exhibit Unitil-2 in the evidentiary record. In addition, the Attorney General relies on Exhibit Unitil-2 in her reply brief (see Attorney General Reply Brief at 5).

[9] In her initial and reply briefs, the Attorney General does not contend that the record is insufficient to support the AMI system post-test year rate base addition (see Attorney General Brief at 7-12; Attorney General Reply Brief at 2-7).

the Company regarding its response to RR-AG-52 (id. at 2). She further asserts that the hearing officer denied, without explanation, the Attorney General's request to issue follow-up questions on the record request (id., citing Tr. 8, at 1029).

ii. Fitchburg

Fitchburg asserts that the Attorney General was afforded ample opportunity to ensure that Exhibit Unitil-2 was fully vetted to determine its accuracy and that no additional cross-examination of the response to RR-AG-52 should be permitted (Opposition at 4). The Company contends that the hearing officer had previously granted the Attorney General's request to continue the hearings resulting in the Attorney General having six additional days to review Exhibit Unitil-2 and to prepare cross-examination of the Company's analysis contained in that Exhibit (id. at 2, 4-5). Fitchburg argues that, when the hearing reconvened on November 26, 2007, the Attorney General declined to conduct any cross-examination of Mr. Collin on the calculations contained in the Exhibit (id. at 4-5).

The Company also asserts that the Attorney General could have issued her record request regarding Exhibit Unitil-2 on November 20, 2007, when the Company first introduced the Exhibit (id.). Fitchburg argues that the Attorney General, at that time, could have requested that the Company submit an expedited response such that cross-examination on the record request response could have occurred when the hearing reconvened on November 26, 2007 (id. at 5).

The Company also contends that the Attorney General has misconstrued the nature and purpose of Exhibit Unitil-2 (id. at 2-3). Specifically, Fitchburg asserts that Unitil did not

propose a pro forma adjustment in the cost of service for operations and maintenance ("O&M") savings related to the AMI project in its initial filing nor did it recommend such an adjustment on redirect (id. at 2-4).

c. Analysis and Finding

The Department has held that where there is no evidence that the hearing officer abused his or her discretion in ruling on a motion, the decision of the hearing officer must be affirmed. The Berkshire Gas Company, D.T.E. 01-56, at 6-7 (2002). The Department's procedural rules provide the hearing officer with the discretion to make all decisions regarding the admission or exclusion of evidence, as well as any other procedural matters which may arise in the course of a hearing. 220 C.M.R. § 1.06(6)(a).

The Attorney General did not appeal the hearing officer's ruling admitting Exhibit Unitil-2 in the evidentiary record. Nonetheless, we determine it appropriate to discuss such ruling. Administrative agencies need not adhere to the rules of evidence observed by courts, but may admit evidence and give testimony probative effect if it is the kind of evidence on which reasonable persons are accustomed to rely in the conduct of serious affairs. G.L. c. 30A, § 11(2); see also 220 C.M.R. § 1.10(1). When the Company introduced Exhibit Unitil-2, the witness explained that he had prepared it to address several questions from the Department and the Attorney General relating to Exhibit AG 2-30 (Tr. 7, at 978-979).[10] At that time, the hearings were still ongoing; hence, there was no prejudice to

[10] Exhibit AG 2-30 presents, in part, the financial analysis used by Fitchburg in its decision to install the AMI system. Examination on Exhibit AG 2-30 was conducted (continued…)

the parties since they had the opportunity to examine the Exhibit's veracity on the record. Furthermore, Exhibit Unitil-2 contains sufficiently probative information to meet the admissibility standard under the Massachusetts Administrative Procedure Act. G.L. c. 30A, § 11(2); see also 220 C.M.R. § 1.10(1).[11] As such, we find that the hearing officer did not abuse her discretion in admitting Exhibit Unitil-2 in the evidentiary record.

With respect to the Attorney General's request to conduct follow-up discovery on the record request response, the transcript indicates that the Attorney General asked whether the Department's procedural rules permit such follow-up discovery (Tr. 8, at 1029). They do not. Prior to the request to conduct additional discovery, the Attorney General had rested her case (id. at 1027). No person may present additional evidence after resting nor may any hearing be reopened after having been closed except upon motion and showing of good cause. See e.g., Boston Gas Company, D.P.U. 93-60, at 9, Order on Appeal of Hearing Officer Ruling Granting Attorney General's Motion to Strike Exhibits BGC-141 and BGC-142 (Oct. 30, 1993); see also 220 C.M.R. § 1.11(8); but see Boston Gas Company, D.P.U. 88-67 (Phase II) at 7 (1989) (Department may permit updating of routine information already provided on the record, e.g., rate case expense).

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[10](…continued)
during the hearing on November 5, 2007 (Tr. 1, at 77, 88-105, 116-131).

[11] Section 11(2) provides in pertinent part that "[e]vidence may be admitted and given probative effect only if it is the kind of evidence on which reasonable persons are accustomed to rely in the conduct of serious affairs."

Procedurally, there are avenues that parties may take to ensure a complete record. Once the Attorney General was in receipt of the Company's response to RR-AG-52, she could have objected to the response as insufficient. Alternatively, upon receipt of the Company's response to RR-AG-52, the Attorney General could have submitted a motion to present additional evidence pursuant to Department regulations. 220 C.M.R. § 1.11(8). In addition, the Attorney General could have issued her record request on November 20, 2007, requested expedited response, and then conducted cross-examination on November 26, 2007.[12]

Therefore, the Department finds that the hearing officer did not abuse her discretion in denying the Attorney General's request to conduct follow-up discovery on the outstanding record request response. Accordingly, the hearing officer's ruling is affirmed.

2. Attorney General Motion to Strike

a. Introduction

In its initial brief, the Company made two statements regarding the salaries in the New England market (Fitchburg Brief at 43, citing Tr. 1, at 80; Exh. AG 6-5, Att. 1). Fitchburg also included a quote regarding the anticipated change in the overall number of active employees (id. at 38, citing Exh. AG 6-11, Att. 2, at 2). On January 14, 2008, the Attorney General submitted a motion seeking to strike these portions of the Company's initial brief, asserting that the information is related to factual matters not supported on the record

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[12] Additional cross-examination could also have been conducted on the last scheduled hearing date, which was November 27, 2007. The Attorney General, however, rested her case on November 26, 2007, making the additional hearing date unnecessary.

(Attorney General Motion to Strike at 1-2). On January 22, 2008, Fitchburg submitted an opposition to the Attorney General's Motion to Strike.

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Department should strike certain statements on pages 38 and 43 from Fitchburg's initial brief because these statements are not supported by the record (id. at 4). The Attorney General contends that these portions of the Company's initial brief include information that was not produced during litigation, which now unfairly prejudices the rights of other parties since they do not have the opportunity to conduct cross-examination (id. at 2). The Attorney General further alleges that the Company failed to file a motion to reopen the record and admit additional facts in evidence with a requisite showing of good cause, which is necessary to admit post-hearing evidence (id. at 2).

ii. Fitchburg

Fitchburg asserts that the Attorney General's Motion to Strike should be denied because evidence supporting the Company's stated claims is in the record (Fitchburg Opposition to Motion to Strike at 2-3). With respect to the salary information, Fitchburg notes that evidence supporting Fitchburg's claim of annual salary increases in the New England market is on the record, but that the Company provided an incorrect citation (id. at 2). Fitchburg asks that the citation be corrected from Exh. AG 6-5, Att. 1, to Exh. DPU-FGE 3-7, Att. 1 (id. at 2-3). Fitchburg notes that in discussing the anticipated change in the number of employees, the Company mistakenly included the sentence in quotations when the sentence was, in fact, a

paraphrasing of the cited material rather than a direct quote (id. at 2). The Company notes that in its reply brief, it provided the correct excerpt (id.; Fitchburg Reply Brief at 16).

c. Analysis and Findings

It is unfortunate that, in its initial brief, Fitchburg provided an incorrect citation and mistakenly included quotation marks around a paraphrased sentence. Nonetheless, Fitchburg's statements regarding the annual increases in salaries in the New England market and the number of active employees are a part of the record evidence (Exhs. DPU-FGE 3-7, Att. 1; AG 6-11, Att. 2). Thus, the motion of the Attorney General to strike portions of Fitchburg's initial brief is denied.

## II. RATE BASE

### A. Advanced Metering Infrastructure System

#### 1. Introduction

The AMI system is an automated meter reading system by which customer meter data can be sent automatically over the Company's distribution lines to data collection centers where it can be processed for billing (Exh. Unitil-RT-1, at 11; Tr. 1, at 37-38). Data is transmitted by ultra-low bandwidth to a server with router capability located at a substation; it is then transmitted by telecommunication lines to Fitchburg's centralized customer service center in Concord, New Hampshire, where it is made available across the information network to all of the operating centers (Tr. 1, at 40-41). The AMI system currently provides two-way communication between the meters and the service center, as well as automatic reading of meters (id. at 38-41; Tr. 7, at 936).

Fitchburg sees the AMI system as significantly enhancing customer service through more timely and accurate meter reading (Exhs. DPU-FGE 1-17, Att. 2, at 1; DPU-FGE 1-22). The Company also views the AMI system as offering a strategic platform for additional technological, management, and evaluative capabilities, including: (1) better estimating load shapes and peak load conditions of specific circuits; (2) on-demand meter reads; (3) remote "virtual" access (e.g., for disconnections and reconnections); (4) electric system monitoring, including load, voltage, reliability, power quality, outage detection, and management; (5) remote configuration of demand meters and time-of-use meters; and (6) distribution automation (see Exh. DPU-FGE 1-18, Att. 1, at 18; Tr. 1, at 48, 58). Fitchburg has begun to explore the other capabilities of the AMI system, including time-of-use billing, peak period billing, outage management, distribution planning and optimization, and voltage monitoring (Tr. 1, at 59). Fitchburg anticipates that the next phase of the AMI project, expected to take place over the next three to five years, will involve integrating the AMI system with regulatory requirements through additional investments (Tr. 7, at 924, 929-930).

In commencing the AMI project, Fitchburg's parent company, Unitil, assembled a cross-functional project team, including financial, regulatory, operations, and engineering personnel (Tr. 1, at 42-43, 46-47). Unitil then retained Plexus Research, an AMI technology consulting firm, to assist it in preparing and issuing a request for proposals ("RFP") (id. at 42). After an initial screening process, Unitil issued the RFP in March of 2005 to companies identified as having the financial and technical capability to engage in the AMI project, as well as established track records (Exhs. AG 2-32, Att. 1; AG 2-33; Tr. 1,

at 44-45). To ensure a variety of options, Unitil sought "turnkey," "equipment only," or "installation only" proposals (Exh. AG 2-32, Att. 1, at 6, 28; Tr. 1, at 143-144). Each of the solicited vendors submitted a proposal (Exh. AG 2-33; Tr. 1, at 44).[13]

Unitil's project team then narrowed the field of candidates to two vendors: Itron, Inc. ("Itron"), which offered a mobile "drive-by" solution, and Hunt Technologies, Inc. ("Hunt"), which offered a two-way power line carrier ("PLC") fixed network system (Tr. 1, at 45). Fitchburg and UES jointly executed a contract with Hunt in November of 2005 (Exh. AG 2-29, Att. 1; Tr. 1, at 45-46). While Fitchburg and Hunt installed the substation equipment for the AMI project, Fitchburg and UES jointly engaged Honeywell, Inc. ("Honeywell") to coordinate the necessary service appointments for the meter change-outs during the deployment phase of the project (Exh. AG 2-29, Att. 9; Tr. 1, at 65).[14] On August 4, 2005, Fitchburg authorized $4,651,760 for the AMI project, covering both its gas and electric divisions (Exh. AG 1-19, Att. 1, at 284).

As of May 31, 2007, the Company had $5,208,559 in AMI investment in place, of which $8,710 was assigned to internal transmission and $5,199,848 was assigned to base distribution (Exh. Unitil-RT-1, Sch. RT-7-10). Although the AMI project is still classified as

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[13] Unitil received proposals for the AMI system from: (1) Hunt Technologies; (2) Cellnet Technology, Inc.; (3) Distribution Control Systems, Inc.; (4) Elster Electricity, LLC; and (5) Itron. Unitil received proposals for installation services from: (1) Honeywell DMC Services, LLC; (2) Sargent Electric Company; (3) Specialized Technical Services, Inc.; (4) Terasen Utility Services, Inc.; and (5) VSI Meter Services, Inc. (Exh. AG 2-33).

[14] The Company stated that Honeywell was selected to carry out this part of the project because it was able to do so at a lower cost than Hunt (Tr. 1, at 143-144).

a work order, and thus remains booked to unfinished construction, the vast majority of the meters have been installed and in service since the fall of 2006 (Tr. 1, at 60-61, 63-64).[15] Fitchburg anticipates closing out the work order sometime in January or February of 2008, upon the installation of the remaining meters and the completion of testing (id. at 64).

Consistent with its proposal to include the AMI investment in rate base, Fitchburg proposed corresponding increases to its test year depreciation and property tax expenses. First, the Company proposed an increase to depreciation expense of $116,928, of which $550 is assigned to internal transmission and $116,377 is assigned to base distribution (Exhs. Unitil-RT-1, at 35; Unitil-RT-1, Sch. RT-7-10). The Company based the proposed adjustment on the application of its current depreciation accrual rates to the respective plant balances (Exh. Unitil-RT-1, WP 7-10, at 1). Second, Fitchburg proposed an increase to property taxes of $79,951, of which $8,396 is assigned to internal transmission and $71,556 is assigned to base distribution (Exhs. Unitil-RT-1, at 33-34; Unitil-RT-1, Sch. RT-7-10). The Company determined the proposed adjustment by first developing a weighted average property tax rate, using the current property tax rate and number of meters in each community with AMI installations, then applying the resulting weighted average property tax rate of $15.35 per thousand to the overall AMI investment ($5,208,559 * ($15.35/$1,000)) (Exhs. Unitil-RT-1, at 33; Unitil-RT-1, WP 7-10, at 2).

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[15] Fitchburg anticipated installing approximately 28,000 electric meters (Exh. Unitil-RT-1, WP 7-10, at 2). At the end of the test year, about 1,000 needed to be installed, and as of May 31, 2007, only a few hundred meters needed to be installed by Company personnel, mainly due to difficulty in gaining access to customer premises (Exh. Unitil-RT-1, WP 7-10; RR-DPU-4, Att. 1; Tr. 1, at 59-61, 69; Tr. 6, at 748).

2. Positions of the Parties

a. Attorney General

i. Introduction

The Attorney General argues that, pursuant to Department precedent, only plant costs that are (i) prudently incurred and (ii) used and useful in providing service to customers at test year-end can be included in rate base (Attorney General Brief at 8, citing, e.g., D.T.E. 02-24/25, at 22-24; Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 9 (1998)).

ii. Prudently Incurred Standard

The Attorney General states that the Department routinely analyzes utility investment based on the total revenue requirement from the customers' point of view (Attorney General Reply Brief at 4, citing Western Massachusetts Electric Company, D.P.U. 85-270, at 104 (1986); Boston Edison Company, D.P.U. 19494, at 144 (1981)). The Attorney General contends that Fitchburg's cost-benefit analysis was performed from the Company's point of view, including only the shareholders' incremental cash outlay without consideration for any overhead costs (Attorney General Brief at 11). The Attorney General argues that because customers still have to pay for the overhead costs associated with the project, total project costs will be 52 percent above vendor costs alone, which raises the total system-wide AMI project costs from $10.5 million to $16.2 million (id., citing Tr. 1, at 158). According to the Attorney General, Fitchburg's failure to perform an appropriate revenue requirement analysis means that its comparison and analysis of the various vendor bids were "apple and oranges"

comparisons that failed to recognize the true extreme costs of the Hunt bid (Attorney General Reply Brief at 4-5). The Attorney General maintains that, for this reason alone, the Department should deny Fitchburg's request to include the AMI project in rate base (id. at 5).

The Attorney General also asserts that the vast majority of this investment was not compelled by the need to replace any part of Fitchburg's distribution network (id. at 3). Instead, according to the Attorney General, the initiation of the AMI project was driven by Unitil's New Hampshire operations and in response to regulatory changes in that state (id. at 3-4, citing An Investigation into Advanced Customer Metering and Demand Response by Electric Distribution Companies, Docket No. DE 03-013 (N.H. Pub. Util. Comm'n 2004)).

The Attorney General further claims that the Company's proposal to include the costs of the project in rates in this case will increase the revenue requirement by $786,435 per year for the AMI project, as follows: (1) return on rate base of $598,502 ($5,199,848 x 0.1151); plus (2) depreciation expense of $116,377; plus (3) property taxes of $71,556 (id. at 5, citing Exh. Unitil-RT-1, Schs. RT-7-10, RT-7-13). Additionally, the Attorney General notes that customers will have to pay a return plus income taxes on the undepreciated investment in rate base (Attorney General Brief at 11). Based on an average year AMI plant balance of $8 million, and a pre-tax return on investment of 11.51 percent, the Attorney General estimates that customers can expect to pay on average $1.84 million annually for Fitchburg's investment (id., citing Exh. Unitil-RT-1, Sch. RT-13). The Attorney General maintains that, with what she identifies as an annual depreciation rate of 6.9256 percent, the Company is recovering $1.11 million per year in terms of return of its investment (id., citing

Exh. Unitil-RT-1, Sch. RT-7-10). As such, the Attorney General concludes that the total annual costs to customers are $2.95 million per year on average [$1.84 million + $1.11 million = $2.95 million], in contrast to Fitchburg's estimated benefits from the AMI project at only $2.3 million per year (id. at 11-12, citing Tr. 1, at 72, 88-89).[16] Thus, the Attorney General concludes that Fitchburg has failed to show that the investment in its AMI project will be economic over its lifetime (id. at 12).

iii. Used and Useful Standard

The Attorney General points out that the AMI project is still carried on Fitchburg's books as construction work in progress ("CWIP"), and that the work order is not expected to be closed to plant until early 2008 (id. at 8-9, citing Tr. 1, at 64). The Attorney General contends that because the project will continue to be CWIP until 2008, two years after the beginning of the test year, it is by definition not used and useful, and it is not in service and providing benefits to customers (id. at 9, citing D.T.E. 02-24/25, at 22-24; D.T.E. 98-51, at 9).

The Attorney General further argues that the AMI system cannot currently, and may never, provide the scope of benefits to customers anticipated by Fitchburg (id. at 9-10, citing, e.g., Tr. 1, at 59, 64).[17] For example, the Attorney General points out that because the AMI

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[16] Despite these costs to customers, the Attorney General contends that the Company fails to flow through the economic benefits of the AMI project, which Fitchburg identified as $222,269 (Attorney General Reply Brief at 5, citing Exh. Unitil-2).

[17] The Attorney General adds that the AMI investment will cost customers even more in terms of development costs, hardware and software, to be able to have these additional

(continued…)

system can only perform four real-time meter reads per day, the meter add-ons cannot provide dynamic pricing (id. at 10, citing Tr. 7, at 927). The Attorney General also notes that the AMI system cannot provide smart meter functions such as third-party control of customers' appliances or customer internet meter reads (id., citing Tr. 7, at 936-937). In addition, the Attorney General notes that the AMI system cannot provide the data necessary to perform the detailed load analysis that is required to do an appropriate allocation of costs to customer classes (id., citing Tr. 4, at 496-497).

Based on the foregoing, the Attorney General asserts that the AMI project is not used and useful in providing service to customers, and, therefore, the Department must reject the Company's post-test year adjustments to test year-end rate base for the AMI project, along with the related expense adjustments, including depreciation, property taxes, and associated return on rate base (id. at 9, citing Exh. Unitil-RT-1, Sch. RT-7-10). The Attorney General proposes that the Department order Fitchburg to: (1) retain the AMI project rate recovery until the "second phase" of the project is completed or terminated; and (2) perform a revenue requirement analysis to demonstrate that the total project costs, including those that are expected in the "second phase," will provide net economic benefits to customers (Attorney General Reply Brief at 3).

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[17](…continued)
system functions (Attorney General Brief at 10, citing Tr. 6, at 750; Tr. 7, at 923-924; Attorney General Reply Brief at 3).

iv. Proposed Accounting Adjustments

The Attorney General contends that if the Department decides to allow the inclusion of the AMI project in Fitchburg's rate base, then a number of changes are required to the Company's books (id. at 3, 6). First, the Attorney General proposes that the AMI project be depreciated as if it had gone into service as of the beginning of the test year (id. at 7, citing Exh. Unitil-RT-1, Sch. RT-7-11). The Attorney General reasons that had the plant gone into service during the test year, Fitchburg should have accrued one-half year's worth of depreciation on the plant (id.). Second, the Attorney General proposes that the allowance for funds used during construction ("AFUDC") that has been accrued on the AMI project be terminated as of the date that the plant was put into service, which the Attorney General represents occurred during the summer and late fall of 2006 (id. at 6-7, citing Tr. 6, at 748).

Third, the Attorney General argues that because the AMI project would be taxable plant in service, the associated plant must be included at the test year end balance of plant that is used in the determination of property taxes based on a 2008 fiscal year (id. at 7). Finally, the Attorney General proposes that any AMI plant placed into service after the end of the test year must be removed from rate base, because these post-test year additions would not meet the Department's requirements that post-test year plant additions be extraordinary and significant (id., citing Western Massachusetts Electric Company, D.P.U. 1300, at 17-18 (1983); Edgartown Water Company, D.P.U. 62, at 3 (1980); Western Massachusetts Electric Company, D.P.U. 558, at 8 (1981)).

b. Fitchburg

i. Introduction

Fitchburg asserts that its AMI adjustment meets the Department's standards for inclusion in rate base and that the Department should approve the $5.2 million adjustment (Fitchburg Brief at 23).

ii. Prudently Incurred Standard

Fitchburg claims that Unitil made its decision to invest in the AMI project only after a rigorous investigation and selection process, including issuing RFPs and conducting a thorough assessment of the various options (id. at 14-15). Fitchburg states that it determined the Hunt system would meet the meter reading requirements and also provide strategic value in the form of an open platform for future applications (id. at 15, citing Exh. AG 2-30, Att. 1 (Confidential)). The Company emphasizes that no evidence to the contrary concerning the selection process was offered during the proceeding (id. at 14).

Fitchburg defends the financial assessment process as determining both cost savings to the Company and benefits to customers based on an assessment of financial returns, risk, and strategic value (id. at 15-16; Fitchburg Reply Brief at 5). The Company contends that its use of a discounted cash flow analysis for evaluation of its AMI project takes into consideration its internal rate of return ("IRR") analysis, net present values, and simple payback metrics to rank the AMI project among the range of competing options (Fitchburg Brief at 16, citing

Exh. AG 2-30, Att. 1, at 23-24 (Confidential)).[18] According to Fitchburg, the financial analysis estimated that the total direct cost of the AMI project for all of Unitil's operating subsidiaries, excluding internal labor cost and overhead,[19] was approximately $10.5 million (id. at 15, citing Exh. AG 2-30, Att. 1, at 6; Tr. 1, at 92).[20] Annual savings were estimated to be $2.3 million in the first year (in 2005 dollars) and approximately $2.1 million a year thereafter (also in 2005 dollars) (id., citing Exh. AG 2-30, Att. 1, at 6; Tr. 1, at 92). The Company reasons that projects with the best results in a discounted cash flow analysis will also have the best revenue requirement analysis, and if Fitchburg uses the discounted cash flow to select a project — the one with the best net present value or rate of return — those projects whose cash inflows exceed its cash costs will result in the lowest cost to ratepayers (id. at 16-17; Fitchburg Reply Brief at 6). Fitchburg also argues that the financial analysis included all of the benefits that flowed through to customers and some of which also benefit shareholders (Fitchburg Brief at 16).

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[18] Fitchburg submits that financial textbooks and business journals provide economic justification for the use of a discounted cash flow as a long-accepted method for project evaluation, including for regulated entities, because it removes accounting distortions, appropriately recognizes the time value of money, allows for the evaluation of projects based on incremental cash flows, and provides a level playing field for choosing from a range of different options (Fitchburg Brief at 16).

[19] The Company did not consider overhead costs in its evaluation because it considered these to be charges that would have to be allocated to whatever system was ultimately installed, or to other projects if the AMI project was ultimately cancelled (Fitchburg Reply Brief at 4, citing Tr. 1, at 76).

[20] According to the Company, the overall project costs remain close to the original budget estimates, and the two largest components (the Hunt contract and the Honeywell contract) came in at budget (Tr. 1, at 67-68).

In addition, Fitchburg argues that its decision to exclude project overheads from its financial analysis was reasonable (id. at 17-18; Fitchburg Reply Brief at 4). The Company explains that the costs which are not incremental to a project are inappropriate for inclusion in the economic evaluation of that project (Fitchburg Brief at 17, citing Tr. 1, at 76). The Company adds that because overheads represent an allocation of the embedded fixed costs associated with Fitchburg's current utility construction operations, these overheads would have been allocated to other Company projects in the absence of the AMI project (id. at 17-18, citing Tr. 1, at 76; Fitchburg Reply Brief at 4). Consequently, Fitchburg argues that the inclusion of overheads in the Company's economic analysis would have distorted the analysis (Fitchburg Brief at 17-18). Nonetheless, Fitchburg maintains that even with the inclusion of overheads, the financial analysis would have demonstrated that the AMI project continued to yield economic benefits to ratepayers and shareholders alike (id. at 18).

Fitchburg contends that the Attorney General's revenue requirement analysis lacks support in the record and contains a number of basic flaws that, once corrected, demonstrates that the Company's investment in the AMI system yields significant benefits (id. at 17). The Company contests the Attorney General's inclusion of fixed construction overheads in the return on rate base component (id.; Fitchburg Reply Brief at 4). As stated above, Fitchburg argues that these overheads would have been allocated to other projects during the test year and included in rate base even if the AMI project had never been undertaken (Fitchburg Brief at 17-18; Fitchburg Reply Brief at 4). In addition, Fitchburg contests the Attorney General's calculation of the depreciation rate in her revenue requirement analysis. The Company argues

that the Attorney General's proposed accrual rate actually represents the allocation of certain AMI costs to internal transmission (Fitchburg Brief at 18, citing Exh. Unitil-RT-1, Sch. RT-7-10, col. 4).[21] Third, Fitchburg contends that the Attorney General's analysis is a static comparison of annual costs and benefits (id.). According to the Company, the actual savings benefits would be expected to increase at the rate of inflation over time (id., citing Tr. 1, at 101).[22] Fitchburg also contends that the Attorney General's calculations are further distorted because they fail to take into consideration the fact that large projects typically have greater costs than savings during their first year of installation, despite the offsetting savings that occur over the project's useful life (Fitchburg Reply Brief at 4). The Company also argues that the Attorney General's analysis fails to take into account the impact of deferred income taxes (Fitchburg Brief at 19). Fitchburg maintains that while deferred income taxes will decline to zero over the 20-year life of the project, the average deferred tax balance must be deducted from the Attorney General's average AMI investment balance of $8 million,

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[21] Fitchburg maintains that a more accurate accrual rate can be obtained by dividing the depreciation expense of $116,928 over $5.2 million (the amount of the increase to utility plant) resulting in a rate of 2.2449 percent (Fitchburg Brief at 18, citing Exh. Unitil-RT-1, Sch. RT-7-10, col. 4). Fitchburg states that multiplying the total project cost (with overheads) of $16.2 million by 2.2449 percent yields a total project depreciation expense of $363,677, and that adding this revised amount to an average $1.84 million in return dollars, the annual cost to ratepayers is approximately $2.2 million, which is less than the annual savings of $2.3 million (id.).

[22] The Company also argues that assuming that the 2005 estimate of savings escalates annually at three percent (for labor and cost-related inflation), over a 20-year life, these savings would grow to approximately $4.2 million, or an average annual savings of $3.25 million (Fitchburg Brief at 19).

because the benefit of deferred taxes to ratepayers is particularly great in the early years of the project when the present value of the dollars is the highest (id.).

Fitchburg further argues that the Attorney General's calculation relies on the annual savings estimate of $222,269 as contained in Exhibit Unitil-2 and ignores the actual nature of these savings (Fitchburg Reply Brief at 4). The Company contends that the savings calculation in Exhibit Unitil-2 is expressly limited to the metering account expense savings, and does not include savings related to employee benefits and other labor overheads, such as pension and other post-retirement and medical expenses (id. at 5, citing Tr. 8, at 981-982). Fitchburg also notes that the saving calculation shown in Exhibit Unitil-2 does not take into account that certain full-time positions were held open at various times during the test year to allow for workforce transitions (id., citing Tr. 8, at 984-985). The Company argues that benefits have already been passed on to customers in the form of a lower wage and salary expense associated with these open positions, and that there is no need to make an additional pro-forma adjustment for AMI savings (id., citing Tr. 8, at 985). Finally, the Company argues that the Attorney General's analysis only includes savings related to the base distribution portion of rates, and fails to include savings related to the much larger energy component of rates which are directly flowed back to customers through reconciling mechanisms (and therefore would be double-counted if included as a base distribution adjustment) (id.).

iii. Used and Useful Standard

Fitchburg maintains that the $5.2 million AMI project investment represents a significant component of the Company's year-end plant in service of approximately

$83.7 million (Fitchburg Brief at 11, citing Exh. Unitil-RT-1, at 10). The Company claims that the AMI project had been fully operational for metering and billing purposes since the end of 2006, with only a few hundred meters left to be replaced (id. at 20, citing Tr. 1, at 59-61; Tr. 7, at 748). The Company states that the entire AMI Project is expected to be closed to plant in service early in 2008 (id., citing Tr. 1, at 64; Fitchburg Reply Brief at 3). Therefore, the Company concludes that the AMI project will not be in CWIP during the rate year (Fitchburg Brief at 20).

Fitchburg defends the functionality of the AMI system's basic metering function and data deliverability as highly robust and accurate, and maintains that the installation has been the best operation in the Company's experience (id., citing Tr. 1, at 62-63).[23] Fitchburg acknowledges that all potential benefits of the system beyond the metering and billing are not functional at this time, and that many of the additional strategic benefits of the AMI system will only be realized over time (id.). However, the Company claims that unlike an electric generating plant that is not considered used and useful until it starts to generate power, the AMI project is not a single interdependent plant item whose components must be 100 percent complete in order to be included in rate base (id. at 20-21). Fitchburg argues that the benefits and savings upon which the investment was justified are already in place, including (1) labor

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[23] The Company adds that there have been no problems with the consulting services or with technical support that Hunt has provided, and that the installation and acceptance testing were completed very close to the scheduled dates provided in the contract (Fitchburg Brief at 20, citing Tr. 1, at 63, 108). Fitchburg contends that any delay in the schedule occurred with respect to the New Hampshire installation, and had been at the discretion of and with the agreement of Unitil, and was not a result of project slippage on Hunt's part (id., citing Tr. 1, at 110).

and labor-related benefits and vehicles, (2) redeployment of the meter reading workforce into other jobs or other positions throughout the Unitil system, thus resulting in labor-related savings, and (3) reduction of vehicle costs since most of the meters are now being read through the AMI system (id. at 21, citing Tr. 1, at 93-94).[24] Other benefits that the AMI project currently brings, according to the Company, include the ability to enhanced restoration efforts in the event of an outage, and the ability of customers to get an "on-demand" read within seconds, enabling customer service representatives to respond to high bill complaints and requests for "read-ins" and "read-outs" while on the phone with the customer (id. at 21-22).

The Company contends that its AMI project's financial analysis did not take into consideration future technology enhancements because the investment in AMI was justified by the basic automated metering functions it provided (id. at 21, citing Exh. AG 2-30, Att. 1, at 4 (Confidential); Tr. 1, at 125). Fitchburg likens the Attorney General's position as akin to opposing the introduction of desktop computers into the workplace in the 1980s because of a lack of color graphics or network access (Fitchburg Reply Brief at 3). Fitchburg argues that not recognizing the current benefits of the AMI project would result in stifling innovation and would delay the introduction of technological advances among the Commonwealth's utilities (id.). The Company maintains that no rational utility would risk investment in technology

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[24] Fitchburg contends that staffing reductions were achieved through attrition and retirements and are conservatively estimated at 19.5 full-time equivalent positions system-wide (Fitchburg Brief at 21). The Company asserts that savings from the elimination of vehicles, fuel savings, reduction in accidents, and various other costs related to meter reading that are avoided by an automated system began to accrue immediately as routes were completed and as portions of the AMI network were installed and tested (id., citing, e.g., Exh. Unitil-2; Tr. 1, at 29).

under a framework whereby recovery is denied, even in the face of analysis showing current benefits, until all possible advanced functions are proven and operational (id.).

iv. Proposed Accounting Adjustments

Fitchburg contends that the Attorney General's alternate proposal to treat the AMI as if it had been in service as of the beginning of the test year is contradictory (id. at 6). The Company argues that there is no evidence or testimony to suggest that its proposed accounting treatment of the AMI system is incorrect or contrary to either Federal Energy Regulatory Commission ("FERC") or Department rules (id. at 6).

3. Analysis and Findings

a. Standard of Review

For plant costs to be included in rate base, the expenditures must be prudently incurred, and the resulting plant must be used and useful in providing service to ratepayers. D.T.E. 98-51, at 9; Boston Gas Company, D.P.U. 96-50 (Phase I) at 15 (1996); Boston Gas Company, D.P.U. 93-60, at 42 (1993); D.P.U. 85-270, at 60-107. The prudence test determines whether cost recovery is allowed at all, while the used and useful analysis determines the portion of prudently incurred costs on which the utility is entitled to earn a return. D.P.U. 85-270, at 25-27.

A prudence review must be based on how a reasonable company would have responded to the particular circumstances and whether the company's actions were in fact prudent in light of all circumstances which were known or reasonably should have been known at the time a decision was made. D.P.U. 93-60, at 24-25; D.P.U. 85-270, at 22-23; Boston Edison

Company, D.P.U. 906, at 165 (1982). A review of the prudence of a company's actions is not dependent upon whether budget estimates later proved to be accurate but rather upon whether the assumptions made were reasonable, given the facts that were known or that should reasonably have been known at the time. Massachusetts-American Water Company, D.P.U. 95-118, at 39-40 (1996); D.P.U. 93-60, at 35; Fitchburg Gas and Electric Light Company, D.P.U. 84-145-A at 26 (1984). Such a determination may not properly be made on the basis of hindsight judgments, nor is it appropriate for the Department merely to substitute its own judgment for the judgments made by the management of the utility. Attorney General v. Dep't of Pub. Utils., 390 Mass. 208, 229 (1983).

The Department considers plant to be "used and useful" if the plant is in service and provides benefits to customers. D.T.E. 98-51, at 9; D.P.U. 96-50 (Phase I) at 15. In the absence of extraordinary circumstances, the Department normally does not allow the relitigation of the used or usefulness of plant once it has been included in rate base. D.P.U. 93-60, at 43; The Berkshire Gas Company, D.P.U. 92-210-B at 14 (1993).

b. Application of Standard of Review to AMI Project

Fitchburg seeks to include approximately $5.2 million of AMI investment as a post-test year addition to rate base (Exhs. Unitil-RT-1, at 10; Unitil-RT-1, Sch. RT-7-10; Tr. 1, at 32-33). The Attorney General opposes such treatment on the basis of the Company's accounting treatment accorded to the AMI investment, the prudence of its decision to embark on the AMI project, and the functionality of the AMI investment. As an initial matter, the Department must determine the nature of the AMI investment.

The accounting systems prescribed by the Department, including the Uniform System of Accounts for Electric Companies ("USOA-Electric") codified as 220 C.M.R. §§ 51.00 et seq., represent systems whereby costs are sorted and categorized to provide the Department with information on utility operations and aid in the review of utility costs; they do not establish either the reasonableness per se of the reported costs or the ratemaking treatment to be accorded such costs. Bay State Gas Company, D.T.E. 05-27, at 103 (2005); Boston Gas Company, D.T.E. 03-40, at 208 (2003); Boston Edison Company, D.P.U./D.T.E. 97-95, at 77 (2001).

Nevertheless, as pointed out by the Attorney General on brief, the accounting requirements of both FERC and the Department provide guidance as to the appropriate ratemaking treatment of the AMI investment.[25] See D.P.U./D.T.E. 97-95, at 78 n.47. Fitchburg represents that the AMI system has been operational for metering and billing since the end of 2006, and that the only outstanding costs as of May 31, 2007, were a final vendor payment being held back pending final project acceptance and some USC information system development costs (Exh. DPU-FGE 1-19; Tr. 1, at 59-61).[26] The USOA-Electric specifies that when a part of a project is placed in operation and ready for service, but the project as a whole

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[25] The Department has adopted the FERC uniform system of accounts for electric companies, with certain modifications. 220 C.M.R. § 51.01(1). The FERC uniform system of accounts for electric companies are set forth at 18 CFR Ch. 1, Pt. 101, et seq.

[26] Between the end of the test year and May 31, 2007, Fitchburg incurred AMI project costs relating to the installation of the remaining gas and electric meters, the installation of related substation and communications equipment, and Fitchburg and USC labor (Exh. Unitil-RT-1, WP 7-10, at 1; RR-DPU-4).

remains incomplete, that part of the cost of the project placed into operation or ready for service shall be treated as Electric Plant in Service, and accrue no further AFUDC. 18 C.F.R. Pt. 101, Electric Plant Instructions, 3, A, (17), b.[27] This treatment is especially appropriate for a project such as AMI, where components can be placed into service before the project itself is completed. Fitchburg itself asserted that the AMI project is not a single interdependent plant item whose components must be 100 percent complete to be considered as an in service plant (see Fitchburg Brief at 20-21). Nonetheless, despite the in-service status of the AMI system, Fitchburg elected to continue recording the entire project as CWIP and accrue AFUDC (RR-DPU-4; Tr. 1, at 63-64). The Department places greater weight on the in-service status of the AMI additions than Fitchburg's accounting entries made to record the investment. Therefore, the Department will consider the AMI project expenditures incurred through the end of 2006 (the test year) as plant in service. The Company is ordered to cease accruing AFUDC on the AMI investment in service as of the date the plant went into service, and make the necessary accounting adjustments to ensure that all AFUDC accrued after 2006 is only associated with plant investment made after 2006. Based on the foregoing analysis, AMI project expenditures incurred prior to 2007 will be examined under the Department's prudently incurred, used and useful standard, while AMI project expenditures incurred during 2007 will be examined under the Department's post-test year standard.

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[27] A reading of the USOA-Electric also suggests that it may have been appropriate to book the completed work order balances as of the end of 2006 to Account 106, Completed Construction Not Classified. 18 C.F.R. Pt. 101, Electric Plant Instructions, 3, A, (17), b.

c. Project Expenditures Through 2006

i. Prudently Incurred Standard

The Attorney General contends that Fitchburg's decision to embark on the AMI project was imprudent because the Company failed to perform a cost-benefit analysis, and that her own analysis demonstrates that the economics of the AMI project were not justified. The Attorney General calculates that the AMI project will result in an increase of $786,435 in revenue requirement, versus savings of only $222,269. Conversely, Fitchburg contends that its cost-benefit analysis was reliable and that the Attorney General's alternative analysis is flawed. The Company further maintains that the decision to invest in the AMI project was made only after a thorough and rigorous investigation and selection process, and that no contradictory evidence on this point has been offered.

Concerning Unitil's decision to embark on the AMI project, even if Unitil's decision were influenced in some way by regulatory developments in New Hampshire, a significant number of other utilities in the Northeast have automated metering systems in place (Exh. AG 2-30, Att. 1, § 6 (Confidential)). Thus, the implementation of an automated metering system in this region is not unique to Unitil or Fitchburg. Further, although there is no evidence that the Company's existing meters were defective or nearing the end of their useful lives, Fitchburg has an ongoing need to replace infrastructure to meet reliability standards, as well as to manage its labor-related expenses (see Tr. 1, at 137-139). Given the existence of this technology and the ongoing need to manage increasing labor and other

payroll-related costs, there is nothing to suggest that Unitil placed the needs of its New Hampshire subsidiary first in considering the AMI project.

The Company's financial analysis indicated that the total incremental investment for implementation of AMI across Unitil's system would be $10.5 million, with estimated annual savings of $2.3 million in the first year (in 2005 dollars) and approximately $2.1 million a year thereafter (also in 2005 dollars) (id. at 72, 75, 92). The Attorney General proposed an alternative revenue requirement analysis that relies on cost-of-service analysis techniques, resulting in an average annual cost to customers of $2.95 million.[28]

Fitchburg's discounted cash flow analysis can be used by both regulated and nonregulated companies in making investment decisions. The techniques used in this model remove accounting distortions, appropriately recognize the time value of money, allow for the evaluation of projects based on incremental cash flows, and allow comparisons among a range of options. The Department finds that the discounted cash flow approach taken by the Company is an appropriate standard for evaluating critical investment decisions.

In contrast, the Attorney General's revenue requirement analysis represents a static analysis of an averaged single year of costs and savings. While a revenue requirement analysis may have probative value in establishing the annual revenue requirement associated with a

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[28] The Attorney General derives the $2.95 million by multiplying the average annual AMI plant balance of $8 million by a pre-tax return on rate base of 11.51 percent, plus depreciation based on an accrual rate of 6.9256 percent applied to the total AMI plant investment of $16 million (see Attorney General Brief at 11, citing Exh. Unitil-RT-1, Sch. RT-13). The sum of the resulting $1.84 million return on rate base, plus depreciation expense of $1.11 million, produces a total revenue requirement of $2.95 million (id., citing Exh. Unitil-RT-1, Sch. RT-7-10).

particular investment (see D.P.U. 95-118, at 77 n.47), this type of analysis is not designed to examine all of the costs of a capital project over its useful life. Moreover, the Attorney General's use of a revenue requirement analysis does not take into account possible incremental benefits or the future benefits of the anticipated strategic applications. While Fitchburg's analysis only considers savings presently achieved with the AMI project, a discounted cash flow analysis can be readily adapted to account for future cost savings that may be achieved over the life of a capital project.

Even if the Department were to consider use of a revenue requirement analysis of the AMI project, the Attorney General's analysis contains a number of flaws. First, the Attorney General claims that Fitchburg's cost-benefit analysis failed to consider overhead costs, which would increase the total Unitil system-wide AMI project costs from $10.5 million to $16.2 million. The Attorney General asserts that had Fitchburg included overhead costs in its evaluation process, the Company would have realized that the Hunt bid was less favorable than other options, including "turnkey" operations[29] that would not have required any additional Company capitalization costs (Attorney General Reply Brief at 4). Fitchburg maintains that it was unnecessary to consider overhead costs in the AMI project evaluation, because such costs are not incremental and would have been allocated to other capital projects even in the absence of the AMI project.

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[29] A "turnkey" operation is a product or service concept that is complete, installed, and ready to use upon delivery or installation.

The Department has, in the past, criticized companies for failing to take into consideration overhead costs in their capital budgeting process. D.P.U. 93-60, at 31. Nonetheless, we recognize that an incremental approach is acceptable in a project feasibility study, because overheads would be incurred regardless of the particular alternative under consideration. Further, the overhead costs that were ultimately allocated to the AMI system would have been borne by the Company even if Fitchburg had decided to forego implementation of any of the alternatives (Exh. AG 7-23, Att. 1; RR-AG-46, Att. 1; Tr. 1, at 76-77; Tr. 7, at 948-949). That is, these fixed costs are allocated across all of the Company's construction projects (Exh. AG 7-23, Att. 1; RR-AG-46, Att. 1; Tr. 1, at 76-77; Tr. 7, at 948-949).

Second, the Attorney General's analysis applies an incorrect depreciation accrual rate of 6.9256 percent. The actual depreciation accrual rates associated with the AMI project range between 1.88 percent and 6.32 percent, as contained in Exhibit Unitil-RT-1, Workpaper 7-10, and indicate a composite accrual rate of 2.24 percent. Third, the Attorney General's revenue requirement analysis does not take into account the effect of deferred income taxes. Finally, the Attorney General's analysis only includes savings related to the base distribution portion of the investment, and not savings related to rate components that are directly flowed back to customers thorough reconciling mechanisms, such as pension and post-retirement benefit expenses. After making the noted correction for depreciation expense, the Attorney General's revenue requirement analysis produces a return component of $1.84 million plus depreciation expense of $363,677 ($16.2 million x 2.2449 percent), for a total revenue requirement of

$2.204 million. Even though the revised revenue requirement is less than the reported annual savings of approximately $2.3 million, cost savings are still understated because the Attorney General's calculation (i) does not take into account deferred income taxes and (ii) does not adjust O&M savings for annual increases which are expected to run at about the rate of inflation. Consequently, the Department finds that the Attorney General's economic analysis does not contain the proper assumptions, and therefore, it is rejected.

The Department has emphasized the need for a comprehensive vendor selection process for capital expenditures. D.T.E. 03-40, at 84-86. Unitil instituted a cross-functional, company-wide project management team and retained Plexus Research, a consulting firm with expertise in AMI technology, to assist it in developing and issuing a comprehensive RFP (Tr. 1, at 42-45). After an initial screening process, the RFP was issued to AMI vendors and installation service companies that were identified as having the financial and technical capability to engage in the AMI project (see Exhs. AG 2-32, Att. 1; AG 2-33; AG 2-34; Tr. 1, at 42-45). Based on a review of all of the vendors' proposals, the project team performed comparative analyses on the proposals of Itron and Hunt, and held negotiations with both vendors to clarify various aspects of their proposals (Tr. 1, at 44-46). The Department finds that Fitchburg undertook a comprehensive solicitation process for the AMI project.

Concerning Fitchburg's actual implementation process, the Company stated that the installation process in its own service territory encountered no difficulties (id. at 62-63).[30] The

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[30] Fitchburg reported that its New Hampshire affiliate initially planned to use a 345 kilovolt substation for the data collection point, but found that it could not handle

(continued…)

Department has examined the cost data in Record Request DPU-4 as well as the associated project invoices. The actual level of recoverable pre-2007 AMI project costs for Fitchburg's electric division is discussed below.

ii. Used and Useful Standard

Concerning the issue of whether the pre-2007 AMI investment is used and useful, the Attorney General contends that the Department should deny the Company's proposed inclusion of all AMI costs in rate base because the project remains booked as CWIP, and the functionalities of the AMI system are presently limited. In contrast, Fitchburg maintains that the entire balance of the AMI investment presently in use is providing service to customers.

As of the end of the test year, all but approximately 1,000 out of approximately 27,175 electric meters had been converted to the AMI system, and the necessary data collection equipment had been installed (Exh. DPU-FGE 1-17, Att. 2, at 3; Tr. 1, at 60-61, 109). Further, as noted in Section II.A.3.b., with this type of investment, the full project does not need to be in service in order for a component to be used by the Company and useful in providing service to customers. The Company itself represents that the AMI system has been fully operational for metering and billing since the end of 2006 (Tr. 1, at 59-61). Consistent with our findings in Section II.A.3.b. above, the Department finds that the pre-2007 AMI plant

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[30](…continued)
the data as rapidly and efficiently as desired during hot and humid days (Tr. 1, at 62-63, 147-149). In contrast, Fitchburg used a system of more localized collection points in its service territory, an approach that is now being adopted in New Hampshire (id. at 148-149).

was fully operational for metering and billing, was in service at the end of the test year, and may be considered such for ratemaking purposes.

Turning to the functionality of the AMI system, both customers and the Company have already realized tangible benefits from the AMI system. These benefits include staffing reductions through retirement and attrition (Exh. Unitil-2; Tr. 1, at 29-30), meter-reading savings including the reduction of vehicle costs (Exh. Unitil-2; Tr. 1, at 93-94), enhanced outage management (Tr. 1, at 47-48), and the ability to obtain "on-demand" meter readings that will facilitate resolution of customer issues (id. at 98, 116-117). The tangible savings associated with the AMI program at this stage of development are represented by reduced labor costs associated with meter reading; these savings have already been factored into Fitchburg's revenue requirement through the redeployment of meter readers into other areas of the Company (id. at 29-30).

Although the Attorney General maintains that many of the AMI system's capabilities have yet to be implemented, the fact that additional functions may be achieved with the AMI system in the future does not mean that the existing AMI investment is not used and useful. Fitchburg intends to continue evaluating the full potential of its AMI system as a backbone platform on which further innovations can be added (Tr. 7, at 923-924, 928). The Department recognizes the need of companies to invest in new technology to accommodate future demand. NYNEX Price Cap, D.P.U. 94-50, at 300 (1995). New technologies, whether represented by the AMI system or some future form of automated meter reading, will facilitate the Department's goal of expanding energy efficiency, demand response, and distributed resources

in a way that could reduce the demand for electricity under high-load conditions and could moderate the effects of price volatility on customers. See Investigation by the Department of Public Utilities on its own Motion into Rate Structures that will Promote Efficient Deployment of Demand Resources, D.P.U. 07-50, Order Opening Investigation at 2 (2007). The Department notes that benefits associated with successful reductions in regional demand – whether in all hours or peak demand hours only – reduce costs for all customers through all components of the bill (i.e., not only distribution). Consequently, the Department expects that investment in AMI systems and other technologies that can facilitate success for implementation of policies and programs to reduce demand will have significant value that cannot be fully quantified at the time of a company's investment and installation. Therefore, the Department finds that the Company's AMI investment in service as of December 31, 2006, is benefitting customers and thus is used and useful.[31]

The Company highlights "virtual" service termination as one of the benefits of the AMI system. While the Department recognizes the potential value of such capability, the Department is also concerned that the AMI system may facilitate more aggressive service termination policies than have been implemented to date, and, in particular, could lead to a

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[31] While the Department finds that, in this instance, Fitchburg's AMI investment is used and useful, the Department has a concern related to these types of investments by electric and gas companies. Given the importance of the potential for AMI systems to facilitate energy efficiency, demand resources, and distributed resources, we expect companies to carefully consider these objectives when choosing and planning for AMI system investments in order to consider and, if appropriate, avoid limitations in the usefulness of a company's AMI investment. An example in this case highlighted by the Attorney General is that the system has a limited number of real-time daily meter readings presently available and cannot provide customer internet meter reads.

deterioration of consumer and low-income protections. It is our assumption and expectation that the Company's installation of its AMI system will not result in the deterioration of low-income and consumer protections in its service territory. Nevertheless, we intend to investigate the potential for such result in the investigation recently opened in Investigation by the Department of Public Utilities on its own Motion into Expanding Low-Income Consumer Protections and Assistance, Including Standards For Arrearage Management Programs, Discount Rate, Service Termination, and Energy Efficiency Programs, D.P.U. 08-04, Order Opening Investigation (Feb. 12, 2008).

Concerning the level of pre-2007 AMI expenditures to include in Fitchburg's electric cost of service, as of December 31, 2006, the Company incurred $5,608,433 in AMI project costs for both Fitchburg's gas and electric divisions (RR-AG-47, Att. 1). The project account breakdowns are as follow:

| | |
|---|---|
| Account 659 | $2,621,134 |
| Account 660 | $ 772,543 |
| Account 661 | $ 504,701 |
| Account 662 | $ 632,502 |
| Account 663 | $ 229,686 |
| Account 664 | $ 104,227 |
| Account 665 | $ 736,550 |
| Account 666 | $ 7,090 |

(id.).

Because only a portion of this expense represents AMI costs to Fitchburg's electric division, it is necessary to allocate the total AMI costs between the Company's gas and electric divisions. To do this, the Department first identified the total recoverable AMI costs through the end of 2006 of $5,608,433, by their respective project Accounts 659 through 667, as

provided in Record Request AG-47. This produced a total electric division cost of $3,587,549, a total gas division cost of $772,543, and a total common cost of $1,248,341 (see RR-AG-47; RR-DPU-4). Next, the Department directly assigned these recoverable expenses by project account to their respective gas and electric plant accounts using the data contained in Exhibit Unitil-RT-1, Workpaper 7-10, at 1. For the non-USC project accounts that are common to both gas and electric operations (i.e., Accounts 661 and 666), the Department has prorated the total recoverable expense to the respective gas and electric plant accounts on the basis of Fitchburg's proposed allocation of 66.055 percent to electric plant and 33.945 percent to gas plant (Exh. Unitil-RT-1, WP 7-10, at 1). Finally, USC charges have been allocated to respective plant accounts on the basis of the ratio of total non-USC expenses. Based on this analysis, the Department finds that Fitchburg's electric division incurred $4,524,993 in AMI project costs through December 31, 2006. Of this amount, $8,310 is assigned to internal transmission and $4,516,684 is assigned to base distribution (see Exh. Unitil-RT-1, Sch. RT-10).

d. 2007 Project Expenditures

Turning to the remaining AMI project expenditures, Fitchburg incurred $780,895 in AMI expenses for both its gas and electric divisions between January 1, 2007, and May 31, 2007 (RR-AG-47, Att. 1). The Company also estimates it will incur an additional $181,100 in both gas and electric division costs through the project completion date

(Exhs. Unitil-RT-1, WP 7-10, at 1; DPU-FGE 1-19).[32] Of this total amount, $683,565 relates to Fitchburg's electric division, of which $683,164 relates to base distribution and $400 relates to internal transmission (see Exh. Unitil-RT-1, WP 7-10; RR-AG-47). The Department has allowed post-test year adjustments to rate base, provided that the addition represents a significant increase to year-end rate base. Blackstone Gas Company, D.T.E. 01-50, at 3-4 (2001); Assabet Water Company, D.P.U. 95-92, at 6-7 (1996); D.P.U. 85-270, at 41 n.21; Boston Edison Company, D.P.U. 18200, at 16 (1975). In addition, a post-test year plant addition must be a known and measurable increase to year-end rate base, as well as used and useful to customers. See D.P.U. 85-270, at 20, 26-27; D.P.U. 906, at 7-11.

In this case, the post-test year expenditures relate to the installation of approximately 1,000 gas and electric meters, the installation of related substation and communications equipment, and both Fitchburg and USC labor (RR-AG-47; Tr. 1, at 61). Fitchburg's 2006 rate base, excluding the AMI system, was approximately $46.8 million (see Exh. Unitil-RT-1, Schs. RT-4, RT-7-10). As stated above, Fitchburg's 2007 AMI project costs are expected to be $683,164. The Department finds that the 2007 AMI project expenditures, both current and projected, do not represent a significant increase to Fitchburg's year-end rate base. Therefore, we will exclude the 2007 AMI project expenditures from the Company's proposed rate base.

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[32] As of May 31, 2007, all of the substation and communications equipment had been installed, and only a few meters remained to be retrofitted (see RR-AG-47; Tr. 6, at 748).

e. Proposed Accounting Adjustments

The Attorney General contends that if the AMI project is included in Fitchburg's rate base, the plant must be depreciated as if it had gone into service as of the beginning of the test year. The Company began reading the AMI meters in the fall of 2006 (Tr. 1, at 61). Because the pre-2007 AMI investment was placed into service during the latter part of 2006, it would be inappropriate to adjust the Company's 2006 accumulated depreciation reserve balance for the AMI investment. Therefore, the Department declines to adopt the Attorney General's proposed depreciation reserve adjustment.

The Attorney General has also proposed other accounting adjustments that would be required if the AMI plant is included in rate base, including the termination of AFUDC on plant placed into rate base and the inclusion of property taxes on the AMI plant (Attorney General Reply Brief at 7). The issue of the termination of AFUDC is discussed in Section II.A.3.b. above. The issue of the inclusion of property taxes is discussed in Section II.A.3.f. below.

f. AMI Depreciation and Property Taxes

Consistent with the Department's decision to include a portion of Fitchburg's AMI investment in rate base, it is necessary to adjust the Company's proposed depreciation and property tax expenses. To do this, the Department has first allocated total recoverable AMI costs through the end of 2006 for Fitchburg's electric division of $4,524,993 to their respective gas and electric plant accounts using the data and allocation method provided in Exhibit Unitil-RT-1, Workpaper 7-10, at 1. Based on this allocation, the Department finds

that the AMI plant balances for the Company's electric division by account are as follows: (1) $992,537 for Account 362 (Station Equipment); (2) $3,412,472 for combined Accounts 370 (Meters) and 370.1 (Meter Installations); and (3) $119,984 for Account 397 (Communications Equipment). The Department finds that this method produces a reasonable measure of the Company's depreciable plant by account. See D.P.U. 95-118, at 133.

Application of the respective accrual rates to these plant balances produces a depreciation expense of $103,102, of which $525 is assigned to internal transmission and $102,577 is assigned to base distribution (see Exh. Unitil-RT-1, Sch. RT-10 (Rev.)). Because Fitchburg has proposed an increase to its depreciation expense of $116,377, the Department will reduce the Company's proposed cost of service by $13,800.

Concerning the Company's property tax expense, the Department has applied the Company's weighted average property tax rate of $15.35 to the total allowable AMI costs of $4,524,993, producing a total property tax expense of $69,459 (see Exhs. Unitil-RT-1, Sch. RT-10 (Rev.); Unitil-RT-1, WP 7-10, at 2 (Rev.)). The Department finds that this method produces a reasonable measure of the Company's allowable property tax expense associated with the AMI project. See D.P.U. 95-118, at 148. Of this amount, $7,294 is assigned to internal transmission and $62,165 is assigned to base distribution (see Exh. Unitil-RT-1, Sch. RT-10 (Rev.)). Because Fitchburg has proposed an increase to its property tax expense of $71,556, the Department will reduce the Company's proposed cost of service by $9,391.

g. Future Planning

The Company has shown that AMI is much more than a meter-reading system. As has been repeatedly pointed out, AMI is a platform for several other functionalities that can contribute to more efficient and effective utility operations (Exhs. DPU-FGE 1-18, Att. 1, at 18; DPU-FGE 1-22; Tr. 1, at 48, 59). Most importantly, AMI can serve as the platform for significant demand-response, time-of-use programs that will encourage resource conservation (Tr. 1, at 48, 59). The utility industry has begun testing several pilot models of demand-response, time-of-use programming. See Nancy Brockway, Advanced Metering Infrastructure: What Regulators Need to Know About its Value to Residential Customers, National Regulatory Research Institute, File 08-03 (Feb. 2008). Some have examined critical price periods, while other trials have examined rebates to shift demand from peak periods to non-peak periods, thus decreasing the need for expensive peaker plants or added power plants to satisfy short periods of extremely high demand. Id.

Fitchburg now has in place a system that can support time-based rate programs for its customers, and that can offer other benefits relating to energy delivery and customer empowerment via informed energy usage choices. The Department would like to further understand the attributes and capabilities of Fitchburg's AMI system, especially its conservation, demand-response capabilities. Therefore, the Company is directed to prepare a report regarding its plan for the implementation of the next phase of its AMI project. Among the issues to be addressed in the report are:

1. What demand-response, conservation-based programs does Fitchburg intend to run or research as part of its AMI strategy?

2. What ancillary program features of the AMI (e.g., immediate meter read-outs, power quality monitoring, disconnection features, outage reporting) does the Company intend to pursue as part of its AMI strategy?

3 What are the future cost-benefit savings for each capability of the system?

4. What is the master time-table for future application development?

Fitchburg shall file this report with the Department within six months from the date of this Order.

B. Cash Working Capital

1. Introduction

In day-to-day operations, utilities require funds to pay for expenses incurred in the course of business, including O&M expenses. These funds are generated either internally by a company or through short-term borrowing. Department policy permits a company to be reimbursed for costs associated with the use of its funds for the interest expense incurred on borrowing. D.P.U. 96-50 (Phase I) at 26, citing Western Massachusetts Electric Company, D.P.U. 87-260, at 22-23 (1988). This reimbursement is accomplished by adding a working capital component to the rate base computation. Non-fuel working capital needs have been determined through either the use of a lead-lag study or a 45-day O&M expense allowance. D.T.E. 03-40, at 92.

In its initial filing, the Company proposed a cash working capital allowance of $808,603, which was subsequently revised to $794,300 (Exh. Unitil-RT-1, Schs. RT-4, RT-4 (Rev.)). This allowance corresponds to a 37.35-day lead-lag factor that the Department applied in D.T.E. 02-24/25. D.T.E. 02-24/25, at 57. Application of the 37.35-day lead-lag

factor applied to an adjusted O&M expense balance of $7,685,697 produced the cash working capital allowance of $786,468 (see Exh. Unitil-RT-1, Sch. RT-4-1 (Rev.)).

2. Positions of the Parties

Fitchburg contends that it adopted the 37.35 lag days that the Department applied in the Company's previous rate case based on rulings by the Department encouraging utilities to pursue cost-effective alternatives to the preparation of lead-lag studies (Fitchburg Brief at 25, citing D.T.E. 03-40, at 92). The Company maintains that it determined the cost of conducting a new lead-lag study applicable to only its electric division outweighed any possible benefits that might result from a new lead-lag study (id. at 25-26). In deciding against performing a new lead-lag study, Fitchburg states that it relied upon the same cost-benefit analysis it had conducted as part of its 2002 rate case, and reached the same conclusion that such a study would not be cost effective (id. at 25-26).[33] The Attorney General did not submit a brief on the issue of the Company's proposed cash working capital allowance factor.

3. Analysis and Findings

If properly designed, lead-lag studies are an appropriate method to determine cash working capital. However, lead-lag studies are complex and costly to undertake. The costs associated with a lead-lag study are often out of proportion to the contributions of cash working capital to a company's rate base. In recognition of this fact, the Department has

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[33] Fitchburg noted that the Department took administrative notice of the previous cost-benefit analysis submitted by the Company (Fitchburg Brief at 26 n.4, citing Tr. 7, at 947).

directed that companies propose alternatives to lead-lag studies if such studies are not cost-effective.[34] D.T.E. 03-40, at 94; D.T.E. 02-24/25, at 57.

In Fitchburg's last rate case, the Company proposed the use of a 45-day cash working capital allowance factor, and supported this factor with the results of a cost-benefit analysis that concluded, using probability analysis, there was less than a 50 percent chance that a lead-lag study would benefit ratepayers.[35] The Department was critical of the Company's reasoning, finding that Fitchburg merely "undertook an analysis to prove a premise that the Department has already accepted, namely, that lead-lag studies, because of their cost, are unlikely to be cost-beneficial for ratepayers." D.T.E. 02-24/25, at 56. Rather than deny Fitchburg any cash working capital allowance, the Department reviewed a partial survey of expense lags provided by the Company and made several adjustments that resulted in a lead-lag factor of 37.35 days. Id. at 56-57. Although the Department did not intend that the 37.35 day lead-lag factor supplant the 45-day convention, we announced that each gas and electric company would be required to conduct lead-lag studies where cost-effective. Id. In those cases where a lead-lag study is not cost-effective, each company must propose a reasonable alternative to a lead-lag study to develop an interval different than the 45-day convention. Id. at 57.

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[34] In this context, "cost-effective" means that the normalized cost of the study (i.e., the cost of the study divided by the normalization period used in the utility's rate case) is less than the reduction in revenue requirements that would occur using the results of the lead-lag study in lieu of the 45-day convention. D.T.E. 02-24/25, at 57 n.34.

[35] At that time, the Company obtained a competitive bid indicating that a lead-lag study would cost $193,000. D.T.E. 02-24/25, at 54.

In the present case, Fitchburg did not conduct a new lead-lag study or revise the cost-benefit analysis performed in 2002, but chose to rely on the results of the Department's lead-lag analysis applied in D.T.E. 02-24/25 (Exh. Unitil-RT-1, at 14-15; Tr. 7, at 938-939). Based on the estimated cost of a lead-lag study provided in D.T.E. 02-24/25, the Department is persuaded that the cost of a new lead-lag study in 2007 would, in the case of Fitchburg, outweigh whatever benefits may accrue to ratepayers as the result of a possible reduction to the lead-lag factor.

Based on the foregoing analysis, the Department accepts Fitchburg's proposal to employ the 37.35 day lead-lag factor applied in D.T.E. 02-24/25. Application of this lead-lag factor to the Company's O&M expense produces a cash working capital allowance of $786,468. The effect of this cash working capital allowance on the Company's revenue requirement is provided in Schedule 6 of this Order.

C. Independent System Operator Deposits

1. Introduction

Fitchburg is required to provide ISO New England Inc. ("ISO-NE") with a minimum security deposit in order to participate in the regional electricity markets (Exhs. Unitil-RT-1, at 15; AG 2-41). The amount of the required deposit is a function of the amount of the Company's recent ISO-NE bills, and any excess deposit over the required minimum that is used to pay such bills (Exh. Unitil-RT-1, at 15). The average ISO-NE deposit for the thirteen-month period ending December 31, 2006, is $848,811 (id.; Exh. Unitil-RT-1, Sch. RT-11). The Company proposed to include these funds in rate base because they are held

on behalf of retail customers to cover its transmission obligations associated with access to the energy markets (Exh. Unitil-RT-1, at 15).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the Department should reject Fitchburg's proposal to include the deposit made to ISO-NE in rate base because the deposit is related to the Company's transmission business, not the distribution business (Attorney General Brief at 13, citing Tr. 2, at 213-214; Tr. 6, at 778-779; Attorney General Reply Brief at 8). The Attorney General argues that including the ISO-NE deposit in distribution rates ignores all regulatory cost and cost allocation principles that the Department relies upon to set rates based on the cost of providing that service (Attorney General Brief at 13, citing D.T.E. 03-40, at 365-366; D.T.E. 02-24/25, at 252-253; D.T.E. 01-56, at 135).

Further, the Attorney General notes that the ISO-NE deposit balance varies by a large amount from month to month, ranging in the test year from $378,588 to more than $1,254,718 (id., citing Exh. Unitil-RT-1, Sch. RT-11). According to the Attorney General, the Company should not, and has not, used permanent financing to fund the deposit (id. at 14). The Attorney General argues that large variations in the monthly balances on the ISO-NE deposit prevents the Company from financing the balance with the permanent types of capital that are used to support the investment in rate base (id., citing Exh. Unitil-RT-1, Sch. RT-11). Further, the Attorney General rejects Fitchburg's assertion that the Company does not track the source of funds (Attorney General Reply Brief at 8-9, citing Tr. 6, at 782-783). The

Attorney General contends that the Company uses short-term funds for things such as: (1) the unrecovered balance of the deferred cost of gas; (2) the under- and over-recoveries of the electric restructuring transition charge; and (3) the unrecovered balance of basic service costs (id. at 9).

Last, the Attorney General states that Fitchburg receives interest on its deposit that it flows through to shareholders by including those interest earnings below the line, and any amount credited to the deposit balance reduces the total interest requirement for customers by only a small amount (Attorney General Brief at 14, citing Tr. 6, at 782-783; Attorney General Reply Brief at 8). Therefore, the Attorney General asserts that the inclusion of the ISO-NE deposit in rate base allows the Company to recover its carrying costs for these funds twice (i.e., once from customers through the inclusion in rate base and once from the ISO-NE) (Attorney General Reply Brief at 8). For all of the above reasons, the Attorney General asserts that the Department should deny the Company's proposal to include the ISO-NE deposit in its pro forma rate base (Attorney General Brief at 15).

b. Fitchburg

The Company argues that since May 2003, Fitchburg is required to provide the ISO-NE with a minimum security deposit in order to participate in regional electricity markets (Fitchburg Brief at 26, citing Exh. Unitil-RT-1, at 15; RR-DPU-33; RR-AG-33). Fitchburg represents that the amount of the required deposit is a function of the amount of its recent ISO-NE bills, and any excess deposit over the required minimum is used to pay ISO-NE bills (id., citing Exh. Unitil-RT-1, at 15; RR-DPU-33; RR-AG-33). Fitchburg explains that since

the funds are held by the ISO-NE to cover the Company's ISO-NE transmission obligations on behalf of retail customers, the funds must be treated as invested working capital and included in rate base (id.). Fitchburg contends that the Attorney General's position is incorrect (id. at 27). The Company argues that the ISO-NE requires collateral deposits because the Company is a load serving entity, which Fitchburg asserts is a function of distribution, not transmission (id. at 27, citing Tr. 6, at 778). Further, the Company contends that the Attorney General misinterprets the relationship between the ISO-NE deposit and Fitchburg's distribution service (Fitchburg Reply Brief at 7). Fitchburg contends that it participates in the regional electricity markets in order to provide distribution service to its retail customers, and that the ISO-NE deposit funds are required to cover Fitchburg's ISO-NE obligations associated with access to the energy markets on behalf of its retail distribution customers, regardless of whether they take energy service from the Company (id., citing Tr. 6, at 780).

In addition, Fitchburg contends that the Attorney General erroneously asserts that the inclusion of the ISO-NE deposit allows the Company to double-recover its costs (Fitchburg Brief at 27). Fitchburg asserts that the interest income associated with the ISO-NE deposit is credited to the Company's ISO-NE collateral account, but that Fitchburg's customers, and not its shareholders, receive the benefit of the interest through reduced cash funding of the collateral requirement (id.). Fitchburg indicates that the interest on the ISO-NE deposit is netted against the balance of its ISO-NE deposit requirements, so that the additional cash needed to fund the deposit is lower than would otherwise be required (id., citing RR-AG-45).

The Company also asserts that the Attorney General incorrectly assumes that Fitchburg does not use permanent financing to fund the ISO-NE deposit (id.). Fitchburg contends that the Company does not "color code" its financing and assign specific dollars to specific categories of costs (id., citing Tr. 6, at 780). Nonetheless, the Company argues that it employs long-term and short-term debt to meet the total obligations of the Company, including its obligations to fund the ISO-NE deposit (id., citing Tr. 6, at 780). Fitchburg claims that the Attorney General's characterization that the amounts of the ISO-NE deposit "vary tremendously" from month to month is also an exaggeration (id.). The Company contends that seasonal variations in the amount of the deposit should be expected and because the Company employs a thirteen-month average, rather than a year-end number, the seasonality of an item in rate base can be mitigated (id. at 27-28, citing Exh. Unitil-RT-1, Sch. RT-11; Tr. 6, at 780).

According to the Company, the Attorney General also fails to consider the opportunity cost of capital which shareholders forego when Fitchburg dedicates a portion of its funds for payment of the ISO-NE deposit (Fitchburg Reply Brief at 7). Because shareholders have lost the ability to earn a return on the cash used to fund the deposit, they are entitled to be compensated for their funds (id.).

3. Analysis and Findings

Fitchburg proposes to add $848,811 to rate base to account for the time value of money from the ISO-NE deposit. The Attorney General opposes this addition to rate base. The Attorney General's main opposition concerns the function of the ISO-NE deposit as transmission related (see Exh. AG 2-41; Tr. 2, at 213-215; Tr. 6, at 778-779). The ISO-NE is

the entity that serves as the regional transmission organization by administering the New England energy markets and operating the New England bulk power system (Exh. AG 2-41, Att. 1, at 3). Fitchburg responded affirmatively when asked whether the ISO-NE deposit charges are primarily transmission charges (Tr. 2, at 214-215). As such, the Department finds that the function of the ISO-NE deposit is transmission-related, and thus concurs with the Attorney General (Exh. AG 2-41; Tr. 2, at 213-214; Tr. 6, at 778-779).

Pursuant to Department precedent, expenditures to serve a transmission function are not a part of cost causality for distribution service. See D.T.E. 03-40, at 365-366; D.T.E. 01-56, at 135. In Fitchburg Gas and Electric Light Company, D.T.E. 97-115/98-120, at 38 (1999), the Department ordered that all electric and gas bills sent to a retail customer be unbundled to identify separately the rates charged for generation, transmission, and distribution services. Approval of a transmission charge that is made a part of a distribution rate for customers would contravene unbundling. Therefore, the Department denies the Company's proposal to include the ISO-NE deposit in rate base. Accordingly, the Department finds that the Company must remove from rate base, the $848,811 addition for the ISO-NE deposit.

D. Accumulated Deferred Income Taxes

1. Introduction

As of the end of the test year, Fitchburg had recorded $12,873,275 in accumulated deferred income taxes (Exh. Unitil-RT-1, Sch. RT-12 (Rev.)). In calculating its rate base, the Company excluded deferred income taxes associated with contributions in aid of construction, accrued revenues, obligations related to pension and post-retirement benefits other than

pension ("Pension/PBOP"), generation, and SFAS 158 (Exh. Unitil-RT-1, at 16). These adjustments produced a reserve for deferred income taxes of $5,482,413, of which $575,714 was assigned to internal transmission and $4,906,699 was assigned to base distribution (Exh. Unitil-RT-1, Sch. RT-4 (Rev.)). Of the deferred income taxes excluded from the rate base calculation, $10,519,815 represented federal and state accumulated deferred income taxes associated with accrued revenues (Exh. Unitil-RT-1, Sch. RT-12 (Rev.), at 2, lines 11 and 12).

2. Positions of the Parties

a. Attorney General

The Attorney General notes that, pursuant to Department precedent, all deferred income taxes associated with Fitchburg's utility business must be used as a deduction from rate base (Attorney General Brief at 12, citing Commonwealth Electric Company, D.P.U. 88-135/151, at 14-16 (1989); Boston Edison Company, D.P.U. 1350, at 5-6 (1983); Western Massachusetts Electric Company, D.P.U. 182, at 6 (1975)). The Attorney General maintains that the Company has failed to comply with this precedent, because it excluded from its year-end balance of accumulated deferred income taxes $10,519,815 in deferrals associated with accrued utility revenues (id., citing Exh. Unitil-RT-1, Sch. RT-12, at 1). Fitchburg's customers, according to the Attorney General, should receive the full benefit of the carrying costs associated with these deferred tax benefits (id.). Thus, the Attorney General argues that the Department should increase the Company's accumulated deferred income tax balance, thereby reducing rate base, by the $10,519,815 of benefits associated with accrued utility revenues (id., citing D.P.U. 88-135/151, at 14-16; D.P.U. 1350, at 5-6; D.P.U. 182, at 6).

b. Fitchburg

As an initial matter, the Company maintains that while the Attorney General's proposal may have been relevant prior to industry restructuring, when electricity was furnished on a bundled basis, it is no longer relevant because power is now provided on an unbundled basis (Fitchburg Brief at 29). Fitchburg notes that, in its last rate case, the Department found that it had appropriately removed the accumulated deferred income taxes associated with accrued gas and electric revenues from its total deferred income tax balances, because such deferred income taxes were associated with energy supply costs that are no longer provided on a bundled basis (id., citing D.T.E. 02-24/25, at 62).[36] Fitchburg points out that ratepayers already receive the benefits of these deferred income taxes, because the Department requires the Company to compute carrying charges on standard offer and default service net of the tax benefits provided by these deferrals (id., citing D.T.E. 02-24/25, at 62). Accordingly, the Company argues that reducing rate base in this proceeding by deferred income taxes associated with accrued revenues would result in a double counting of such tax benefits (id.).

3. Analysis and Findings

Accumulated deferred income taxes represent a cost-free source of funds to utilities and, accordingly, are treated as an offset to rate base. Essex County Gas Company, D.P.U. 87-59, at 27 (1987); AT&T Communications of New England, D.P.U. 85-137, at 31

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[36] Fitchburg notes that the Department's rationale for the adjustment was to ensure that only the balances of deferred income taxes applicable to the distribution function, as distinct from the Company's gas supply and generation functions, would be deducted from rate base (Fitchburg Brief at 29, citing D.T.E. 02-24/25, at 62).

(1985); D.P.U. 1350, at 42-43. However, the Department also has a general policy of matching recovery of tax benefits and losses to the recovery of the underlying expense with which the tax effects are associated. Commonwealth Electric Company, D.P.U. 89-114/90-331/91-80 (Phase I) at 29 (1991); Massachusetts Electric Company, D.P.U. 89-194/195, at 66 (1990).

In this proceeding, the Company excluded from its year-end accumulated deferred income tax balance $10,519,815 of deferred income taxes associated with accrued revenues (Exh. Unitil-RT-1, Sch. RT-12 (Rev.) at 2, lines 11 and 12). Because Fitchburg's generation costs have been unbundled from electric rates, all related costs, including deferred income taxes, are appropriately assigned to these functions. See D.T.E. 97-115/98-120, at 38-39. The Company made a similar adjustment in computing the rate base in its last rate case, which the Department permitted in order to ensure that the balance of accumulated deferred income taxes deducted from rate base was entirely distribution-related. D.T.E. 02-24/25, at 62. We find no reason to deviate from that practice. Therefore, the Department finds that Fitchburg has appropriately adjusted its test year balance of accumulated deferred income taxes associated with accrued gas and electric revenues. Accordingly, we will allow the Company's proposed adjustment, but direct Fitchburg to continue to compute carrying charges on basic service over- or under-collections, net of the tax savings produced by these deferrals.

# III. REVENUES

## A. Large Customer Adjustment

### 1. Introduction

The Company proposed to decrease its test year revenue by $220,155, to account for the impact of reduced sales post-test year from certain large customers and reduced revenues from conditions of special contracts (Exhs. Unitil-RT-1, at 18; Unitil-RT-1, WP 7-1). These large customers have either moved out of the Company's service territory, ceased certain operations that in turn reduced their load requirement, or entered into special contracts with Fitchburg (Exh. Unitil-RT-1, WP 7-1, at 1). Specifically, the $220,155 reduction comprises four separate revenue adjustments (id.). Customer No. 1 moved all of its manufacturing facilities out of the Commonwealth in July 2006 resulting in a decrease in test year revenues of $83,939 (id.). Customer No. 2 leases space at its site to several businesses (RR-AG-10). One of the businesses was involved in producing a prototype electric motor beginning in 2005 (id.). The project was closed, and Fitchburg stopped billing the business in November 2006 (id.). The reduction in the load consumption resulted in a decrease in test year revenues of $36,506 (Exh. Unitil-RT-1, WP 7-1, at 1). The adjustment related to Customer No. 3 was to eliminate the effect of a rate discount allowed through a special contract (id.). The adjustment related to Customer No. 4 was to offset the lost sales experienced when the customer installed an on-site cogeneration facility and moved from the GD-3 Rate to Standby/Supplemental service under a special contract (id.).

2. Positions of the Parties

a. Attorney General

The Attorney General opposes the Company's proposed revenue adjustment to account for changes to customer revenues (Attorney General Brief at 18). She maintains that the Company has failed to show that the changes represent significant losses either individually or combined, or constitutes a significant adjustment outside of the normal ebb and flow of customers (id.). With respect to Customer No. 1, the Attorney General argues that there is no indication that the site has been abandoned permanently or that this new customer will not increase its operations and usage at this site (id. at 16, citing Exh. Unitil-RT-1, WP 7-1; Tr. 8, at 999). Additionally, the Attorney General maintains that the proposed adjustment of $83,939 for Customer No. 1, represents approximately 0.5 percent of Fitchburg's total test year base distribution revenues (id., citing Exhs. AG 2-14, Att. 1; AG 5-17, at 2), a level substantially below that which the Department has deemed significant in past rulings (id., citing D.T.E. 03-40, at 30; D.T.E. 02-24/25, at 80; Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 18 (2001)).

The Attorney General states that for Customer No. 2, Fitchburg's adjustment in the amount of $36,506 fails to meet the test that the Department considers to indicate a loss outside the normal ebb and flow of sales (id. at 17). The Attorney General argues that there is no evidence that the space, involved in producing a prototype electric motor, will not be similarly engaged by this same business if the prototype proceeds to the manufacturing phase, or that the facilities will not be leased by another business (id.).

With respect to Customer No. 4, the Attorney General argues that since the special contract did not become effective until June 20, 2007, the Company does not have a full year's experience under the provisions of the special contract and therefore the basis for the adjustment is speculative (id., citing Exh. AG 2-16; Tr. 2, at 185). Additionally, the Attorney General submits that even if the adjustment were based on actual experience, the magnitude of the adjustment fails to rise above the normal ebb and flow of customer usage (id.).

In addition, the Attorney General claims that Fitchburg's own forecasts show a substantial increase in customer usage in the large general and special contracts customer class (id. at 18, citing Tr. 6, at 707). The Attorney General also contends that the Company's own forecasts of growth in sales to large customers contradict Fitchburg's proposed adjustments (id., citing Tr. 6, at 707; Exh. RR-AG-5, Att. 1). The Attorney General further asserts that the Company has not shown that the losses supporting the revenue adjustment for large customers are permanent (id.). The Attorney General maintains that the total loss of revenues associated with the Company's large customers represents less than 1.5 percent of Fitchburg's total test year base distribution sales revenue and, therefore, is not a significant change outside of the normal ebb and flow of customers and customer usage (id.). For these reasons, the Attorney General asserts that the Department should not allow these revenue adjustments (id.).[37]

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[37] The Attorney General notes that the Company makes an appropriate adjustment to test year revenues related to another large customer that is on a special contract that includes a discounted rate (Attorney General Brief at 18 n.6).

b. Fitchburg

Fitchburg maintains that it has demonstrated that post-test year revenues will decrease significantly and that the proposed revenue adjustment of $220,155 is known and measurable and outside the ebb and flow of customers (Fitchburg Brief at 32, citing Tr. 8, at 1022-1023). The Company states the compound annual growth rates of kWh sales and billing demands for the large general class decreased 0.8 percent and 1.2 percent respectively, since the 2001 test year (id. at 33, citing Exh. DPU-FGE 1-27, Att. 1). The Company claims to have experienced a 4.1 percent decline in total kWh sales in 2006 and an additional decline of 3.5 percent through November 30, 2007 (id., citing Tr. 8, at 1023). Fitchburg refutes the Attorney General's claim that a loss of revenue in the amount of $220,155, or approximately 1.4 percent of test year revenues, is not sufficiently significant to warrant an adjustment to operating revenues (id.). The Company maintains that a change of this magnitude is significant and is more than four times the compound annual growth rate in revenues of 0.3 percent experienced by Fitchburg since 2001, and more than the absolute change in revenue of 1.0 percent over the period 2001 through 2006, inclusive of the pro forma adjustments (id., citing Exh. MHC-1, Sch. MHC-1). Fitchburg states that the loss of $220,155 from the large customer class is roughly equivalent to losing 645 residential customers, which represents approximately three years of residential customer growth (id.).

Next, the Company addresses the Attorney General's claim that although Customer No. 1 has moved out of the Commonwealth, this does not indicate that its site has been abandoned permanently or that usage at the site will not increase (id. at 34). Fitchburg argues

that it does not have a reasonable expectation that a large industrial customer will be replacing the lost industrial load formerly used by Customer No. 1 (id., citing Tr. 7, at 972). The Company claims to closely monitor economic development in Fitchburg and the surrounding communities and has determined that, for the foreseeable future, no new industrial customer is likely to come into its service territory or occupy the building vacated by its former large-use Customer No. 1 (id., citing Tr. 8, at 1022-1023).

Regarding the Attorney General's suggestion that the sales forecasts show an overall increase in the large and special customer classes, the Company argues that it is invalid for the Attorney General to draw conclusions based upon a comparison of two vintages of forecasts that are based upon different assumptions (id. at 35). The Company states that the Attorney General makes use of the 2006 forecast when the 2007 version is more recent and more relevant (id.). Fitchburg also claims the Attorney General has misread the Company's 2007 forecast; Fitchburg contends that the 2007 forecast does not show a substantial increase in customer usage for the large general and special contracts customer classes on a combined basis in 2009 (id.). Furthermore, the Company argues that the forecast data clearly show that the "ebb" of kWh sales for large customers is not projected to be offset by a similar "flow" (id. at 35-36).

3. Analysis and Findings

In determining the propriety of rates for companies under its jurisdiction, the Department has consistently based allowed rates on test year data, adjusted for known and measurable changes. Eastern Edison Company, D.P.U. 1580, at 13-17 (1984). The selection

of a historic twelve-month period of operating data as the basis for setting rates is intended to provide for a representative level of a company's revenues and expenses which, when adjusted for known and measurable changes, will serve as a proxy for future operating results. D.P.U. 1580, at 13-17.

In this proceeding, Fitchburg has combined four separate revenue adjustments in order to approximate a 1.4 percent change to distribution revenues (Exh. Unitil-RT-1, WP 7-1). The Department would, however, apply a more accurate assessment that requires analyzing each adjustment individually on its own merits. The Customer No. 1 adjustment represents approximately one-half of one percent of test year distribution operating revenues, the Customer No. 2 adjustment represents approximately two-tenths of one percent of test year distribution operating revenues, and the Customer No. 4 adjustment represents approximately seven-tenths of one percent of test year distribution operating revenues (id.). These revenue losses are not significant in relation to the Company's total test year distribution revenues. Therefore, the Department finds that such a loss of revenues is not significant enough to fall outside the normal ebb and flow of business. See, e.g., D.T.E. 02-24/25, at 80; D.T.E. 99-118, at 18. Accordingly Fitchburg's proposed revenue adjustments for Customers' No. 1, No. 2, and No. 4 are denied.

In regards to Fitchburg's revenue adjustment relating to Customer No. 3, the Department, in our decision in Fitchburg Gas and Electric Light Company, EC 03-3, at 3, Letter Order (May 11, 2004), set specific conditions to be met in order to offer a discount to this customer. One condition was that the discount to this one customer not be recovered from

remaining ratepayers. EC 03-3, at 3, Letter Order (May 11, 2004); see also Standard of Review for Electric Contracts, D.P.U./D.T.E. 96-39-A at 2, Letter Order (Oct. 27, 1998).[38] The adjustment to Customer No. 3 satisfies this condition on the revenue side and hence the Department accepts Fitchburg's adjustment for Customer No. 3.

B. Gain on Sale of Property

1. Introduction

In 1958, the Company acquired 2.37 acres of land at Smith Street, in the City of Fitchburg, at a cost of $2,772 (Exh. AG 1-20; Tr. 3, at 383-384, 389). At the time of its acquisition, the property was recorded as transmission land in Account 350 and assigned to internal transmission for ratemaking purposes (Exh. AG-1-20). In September 2005, the property was sold for $120,000, resulting in a net gain after expenses of $116,630 (id.; Tr. 3, at 384). Because the property, at the time of the sale, was subject to the jurisdiction of FERC and had been included in the calculation of internal transmission charges using FERC-approved formula rates, the gain on the sale, for ratemaking purposes, was booked below-the-line (i.e., to non-utility income) (Exh. AG 7-20; Tr. 3, at 385-387). According to the Company, the accounting for this transaction was appropriate because FERC rules do not require that such gains be utilized to reduce internal transmission rates (Exh. AG 7-20; Tr. 3, at 386).

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[38] The Department permits a distribution company to offer a discount to customers where the following factors are met: (i) the discounted rate exceeds the company's marginal costs of distribution; (ii) a discount to one customer is not recoverable from remaining ratepayers; and (iii) the electric contract is consistent with law and Department precedent. D.P.U./D.T.E. 96-39-A at 2, Letter Order (Oct. 27, 1998).

The Company acknowledges that the Smith Street property was purchased at a time when Fitchburg's distribution and transmission rates were bundled (Fitchburg Brief at 36). Therefore, despite the fact that FERC rules do not require any passback of associated gains on sale, the Company proposes to flow back the gain on the sale of the Smith Street property to retail customers through a credit to the internal transmission charge over a four-year period (id.). The Company proposes this treatment in view of the bundled nature of its rates until 1998,[39] and to avoid any controversy over the appropriate ratemaking treatment of the transaction (id.; Fitchburg Reply Brief at 9).

2. Positions of the Parties

a. Attorney General

The Attorney General agrees that Fitchburg should flow back the proceeds from the sale of the Smith Street property to customers, over a four-year period, through a credit to its internal transmission charge (Attorney General Brief at 20, citing Exh. AG 1-20; Attorney General Reply Brief at 12).[40] However, the Attorney General also argues that the Company

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[39] Prior to 1998, electric service was provided to customers by utilities in Massachusetts under a bundled rate, i.e., one simple rate for distribution, transmission, and generation service. With the implementation of the Electric Utility Restructuring Act in 1998 (Chapter 164 of the Acts of 1997), the rates of Massachusetts electric companies are now unbundled, with separate charges for distribution, transmission, and generation service.

[40] In her initial brief, the Attorney General recommended that the four-year amortization of the gain on the sale of the Smith Street property be used to reduce the Company's pro forma distribution cost of service (Attorney General Brief at 20).

should pay interest to customers on the sales proceeds in an amount equal to its pre-tax weighted cost of capital (Attorney General Reply Brief at 12).

b. Fitchburg

Fitchburg opposes the Attorney General's proposed adjustment with respect to interest (Fitchburg Reply Brief at 10). In the Company's view, its proposal to credit customers with the entire amount of the gain, excluding interest on any unrefunded balances as recommended by the Attorney General, strikes an appropriate balance between customers and shareholders (id.). Alternatively, Fitchburg argues that if the Department decides to accrue interest on unrefunded balances, such interest should be determined at the same rate applied to its under- and over-collections of its internal transmission cost adjustment, i.e., the after-tax prime interest rate (id.).

3. Analysis and Findings

The Department's long-standing policy with respect to gains on the sale of utility property has been to require the return to ratepayers of the entire gain associated with the sale, if those assets were recorded above-the-line and supported by ratepayers. D.P.U. 96-50 (Phase I) at 111; Barnstable Water Company, D.P.U. 93-223-B at 12 (1994); D.P.U. 88-135/151, at 92. Therefore, if such property is sold by the utility, it is necessary to include an adjustment which recognizes the appreciation on assets that ratepayers have supported in rates through a return of and on investment. D.P.U. 88-135/151, at 92.

Fitchburg represents that a passback of the gain on the sale of the Smith Street property is appropriate, in part, because of the bundled transmission and distribution rates that had been

in effect prior to 1998. In view of the fact that rates had been bundled until 1998, the Department accepts the Company's proposal to pass back the gain on the sale over a period of four years as reasonable. Furthermore, in view of the allocation of the Smith Street property to Fitchburg's transmission function, the Department accepts the Company's proposal to pass back the gain through a credit to the internal transmission charge.

Concerning the Attorney General's proposal to apply interest at the pre-tax weighted cost of capital, we have not previously required companies to pay interest to customers on the proceeds of sales of properties at the pre-tax weighted cost of capital or any other measure of carrying costs. D.T.E. 05-27, at 146-152; D.P.U. 96-50 (Phase I) at 111; D.P.U. 93-223-B at 12-14; D.P.U. 88-135/151, at 90-95. The Attorney General's proposal was first raised in her reply brief, and the record is insufficient to establish the propriety of such an adjustment. Therefore, the Department declines to order that interest be added to the passback on the gain on the sale of the Smith Street property.

## IV. OPERATING AND MAINTENANCE EXPENSES

### A. Payroll Expense

#### 1. Introduction

During the test year, Fitchburg's electric division booked $3,329,790 in payroll expense, consisting of $1,331,002 in direct Company payroll and $1,998,788 allocated from USC (Exh. Unitil-RT-1, Sch. RT-7-2 (Rev.)). The Company proposes to increase its test year electric division payroll expense by $271,465, consisting of: (1) $13,828 for a union wage increase of 3.75 percent that took effect on June 1, 2006; (2) $15,908 for a non-union wage

increase of 3.76 percent that took effect on January 1, 2007; (3) $32,136 for a union wage increase of 3.5 percent that took effect on June 1, 2007; (4) $95,812 for a USC non-union wage increase of 4.82 percent that took effect on January 1, 2007; (5) $16,506 for a non-union wage increase of 3.76 percent that took effect on January 1, 2008; (6) $83,345 for a USC non-union wage increase of 4.00 percent that took effect on January 1, 2008; and (7) $28,509 for a union wage increase of 3.0 percent scheduled to take effect on June 1, 2008 (id.). Of the total proposed increase of $271,465, $258,325 is assigned to base distribution and $13,140 is assigned to internal transmission (id.).

The Company's stated policy is to compensate employees at the median of the marketplace for base pay and total cash compensation (Exh. Unitil-MHC-1, at 11-12). The union wage rates are established periodically through the collective bargaining process, and the Company reviews collective bargaining agreements from various utilities in New England to determine competitive wage rates for each position (id. at 12). In addition, surveys are periodically undertaken to compare Fitchburg's union wages with its regional peer group (id.).

Non-union wage rates are assessed by the Company periodically through formal compensation reviews (id.). The most recent comprehensive review of the Company's compensation structure was completed in 2004 with assistance from the Hay Group (id.; Tr. 1, at 84-85).[41] This review of the Unitil companies' salaries and benefits, including those of Fitchburg, was undertaken for the purpose of comparing them to external markets and industry

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[41] The Hay Group is an internationally-recognized expert in the area of employee compensation and provides companies with analyses based on nationwide samples of industry peer groups (Exh. Unitil-MHC-1, at 12; Tr. 1, at 81).

peers (Exh. Unitil-MHC-1, at 12). Every several years, the Company also has the Hay Group conduct an interim study of both salary data and some benefit components, such as incentive compensation programs; the most recent interim analysis was completed in 2005 (Exh. AG 6-5; Tr. 1, at 83). The Company also relies on annual updates from the Hay Group, consisting of a review of salary ranges by job grade and using the Hay Group's proprietary point system (Exh. DPU-FGE 3-7; Tr. 1, at 83-84). Based on the results and recommendations of the Hay Group, Unitil and its subsidiaries, including Fitchburg, have implemented a multi-year program to gradually move salary ranges and base salaries to a more competitive position, i.e., to the median of the market (Exh. Unitil-MHC-1, at 12-13).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Department should deny all post-test year salary increases for the Company's non-union employees and USC non-union employees that are in excess of the rate granted for union employees (Attorney General Brief at 33-34).[42] The Attorney General argues that the non-union wage increase is unreasonable because the Hay Group study relied upon by the Company is more than two years old (id. at 32). Moreover, the Attorney General contends that Fitchburg failed to provide the analysis used by the Hay Group study, which might show whether the proposed non-union wage increases are

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[42] The Attorney General does not contest Fitchburg's inclusion of post-test year salary increases for the Company's union employees. The Attorney General has, however, proposed an across-the-board reduction of five percent to the Company's payroll expense (Attorney General Brief at 31; Attorney General Reply Brief at 20). This proposal is addressed in Section IV.A. below.

appropriate in relation to other New England investor-owned utilities (id., citing D.P.U. 96-50 (Phase I) at 42). The Attorney General also states that in making comparisons to the Company's compensation for non-union employees, the Hay Group study uses a job evaluation point system, which does not clearly show a comparison between Fitchburg and companies of a similar size in terms of annual revenues (id., citing Exh. AG 6-5, Att. 1). The Attorney General asserts that while the Hay Group system is designed to correct for the size of an organization and the scope of a position through a point system assignment process, Fitchburg did not provide the necessary analysis to the Hay Group (id., citing Exh. AG 6-5, Att. 1; D.P.U. 96-50 (Phase I), at 42).

In addition, the Attorney General claims that Fitchburg has failed to show the required historical correlation between union and non-union increases where non-union increases had, on average, been 1.1 to 1.4 percent higher than the union employee increases (id. at 32-33; Attorney General Reply Brief at 20). In support of her position, the Attorney General argues that the ten-year history of wage and salary increases for union, clerical, and management employees of both Fitchburg and USC shows that between 1998 and 2007, union increases, including clerical wage and salary increases, for Fitchburg ranged between 3.0 percent and 4.0 percent, with an average annual increase of 3.135 percent (Attorney General Brief at 32-33, citing Exhs. AG 1-41; AG 6-6). The Attorney General contrasts this with Fitchburg's non-union hourly and salary increases granted during that same period, which ranged between 2.31 percent and 5.14 percent, with an average annual increase of 4.285 percent (id. at 33, citing Exh. AG 1-41). The Attorney General further notes that merit

increases for USC employees, all of whom are non-union, ranged from 4.1 percent to 5.8 percent during the same period, and that the average annual increase for USC employees during this period was 4.545 percent (id., citing Exh. AG 6-6).

Based on this wage and salary history, the Attorney General claims that non-union wage increases are substantially more than union wage increases, thus showing a lack of historical correlation between union and non-union wage increases (id.; Attorney General Reply Brief at 20). The Attorney General contends that the Company has not substantiated why its non-union increase is greater than the union increase through reliance on studies or other evidence (Attorney General Brief at 33).

b. Fitchburg

The Company argues that it conducts periodic formal reviews of its non-union salaries to continually monitor where the Company stands in relation to its industry peers (Fitchburg Brief at 42, citing Tr. 1, at 80-85). The Company asserts that the annual updates it obtains from the Hay Group continue to show market movement of non-union compensation levels in the range of four percent per year, and further show that the Company is lagging behind the market median for every grade level (id. at 42-43, citing Exh. AG 6-5, Att. 1).[43] Fitchburg states that, according to the Hay Group's 2005 interim benchmarking study, the Company placed seven percent below the median for salary in the New England market (id. at 43). Since that time, Fitchburg contends that salaries in the New England market have increased by

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[43] The Company asserts that in order to prudently manage its outside consultant expenses, it purchases updates, rather than comprehensive studies, from the Hay Group on an annual basis (Fitchburg Brief at 42, citing Tr. 1, at 84).

four percent per year, and that the Company has increased its salaries by 4.8 percent per year (id., citing Exh. AG 6-5, Att. 1; Tr. 1, at 80). The Company concludes that it is still at least five percent behind the median in the market, and argues that its "slow and measured approach" towards salary parity is reasonable and conservative, as had been recognized by the Department in D.T.E. 02-24/25 (id.).

Fitchburg argues that in D.T.E. 02-24/25, the Department rejected the Attorney General's attempts to discredit the Hay Group's system of job evaluation, which Fitchburg represents as having been proven over 60 years of industry use to adjust for relative size of a particular company (id., citing D.T.E. 02-24/25, at 94). According to Fitchburg, for certain positions, such as an engineers, accountants, and technicians, working at a small or large company does not create any difference in either job points or grade, because these positions are characterized as "benchmark jobs," where the skills, knowledge, and duties are all the same, and the total pay package should be similar (id., citing Tr. 1, at 82). In contrast, the Company contends that the Hay Group relies on evaluation set points for management grades based on the size of the job and the size of the company, because a manager at a smaller company will automatically have a lower graded job than the same manager running the same function at a larger company (id. at 43-44, citing Tr. 1, at 82). The Company points out that in D.T.E. 02-24/25, the Department found that the comparison groups used by the Hay Group provide a reasonable basis for evaluating Fitchburg's compensation policies (id. at 44, citing D.T.E. 02-24/25, at 94).

3. Analysis and Findings

a. Standard of Review

The Department's standard for union payroll adjustments requires that three conditions be met: (1) the proposed increase must take effect before the midpoint of the first twelve months after the rate increase; (2) the proposed increase must be known and measurable, i.e., based on signed contracts between the union and the company; and (3) the proposed increase must be demonstrated to be reasonable. D.P.U. 96-50 (Phase I) at 43; Massachusetts Electric Company, D.P.U. 95-40, at 20 (1995); Cambridge Electric Light Company, D.P.U. 92-250, at 35 (1993); Western Massachusetts Electric Company, D.P.U. 86-280-A at 74 (1988).

To recover an increase in non-union wages a company must demonstrate that: (1) there is an express commitment by management to grant the increase; (2) there is an historical correlation between union and non-union raises; and (3) the non-union increase is reasonable. D.P.U. 96-50 (Phase I) at 42; D.P.U. 95-40, at 21; Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 14 (1983). In addition, non-union salary increases that are scheduled to become effective no later than six months after the date of the Order may be included in rates. Boston Edison Company, D.P.U. 85-266-A/271-A at 107 (1986).

In determining the reasonableness of a company's employee compensation expense, the Department reviews the company's overall employee compensation expense to ensure that its employee compensation decisions result in a minimization of unit-labor costs. D.P.U. 96-50 (Phase I) at 47; D.P.U. 92-250, at 55. This approach ensures and recognizes that the different components (e.g., wages and benefits) are to some extent substitutes for each other, and that

different combinations of these components may be used to attract and retain employees. D.P.U. 92-250, at 55. The Department also requires companies to demonstrate that their total unit-labor cost is minimized in a manner that is supported by their overall business strategies. Id. However, the individual components of a company's employment compensation package will be appropriately left to the discretion of a company's management. Id. at 55-56.

To enable the Department to determine the reasonableness of a company's total employee compensation expenses, a company is required to provide comparative analyses of its employee compensation expenses. D.P.U. 96-50 (Phase I) at 47. Both current and total compensation expense levels and proposed increases should be examined in relation to other New England investor-owned utilities and to companies in a utility's service territory that compete for similarly skilled employees. Id.; D.P.U. 92-250, at 56; Bay State Gas Company, D.P.U. 92-111, at 103 (1992); Massachusetts Electric Company, D.P.U. 92-78, at 25-26 (1992).

b. Union Wage Increases

With respect to Fitchburg's union wage increases, the June 2006 and June 2007 increases have already taken effect, and the proposed June 2008 increase is based on a signed union contract (Exhs. Unitil-RT-1, Sch. RT-7-2 (Rev.); AG 1-42, Att. 2). Thus, the Company's union increases have either already been granted or will be granted before the midpoint of the first twelve months after the Department's Order in this proceeding. Therefore, the Department finds that these proposed increases are known and measurable

changes to test year cost of service. D.P.U. 96-50 (Phase I) at 43; D.P.U. 95-40, at 20; D.P.U. 92-250, at 35; D.P.U. 86-280-A at 74.

Additionally, survey data indicate that the hourly rates paid to Fitchburg's union employees are comparable to the average hourly rates of other gas and electric utilities in New England and New York (Exh. DPU-FGE 3-7). Finally, the Company considers the results of collective bargaining agreements with other New England utilities to assess the reasonability of its collective bargaining strategy (see Exh. Unitil-MHC-1, at 12). Therefore, the Department finds the union wage increases are reasonable.

Having found that the proposed union wage increases (1) take effect before the midpoint of the first twelve months after the rate increase, (2) are known and measurable, and (3) are reasonable, the Department will allow Fitchburg to adjust its test year cost of service for the union payroll increases. Accordingly, the Company's proposed adjustment is allowed.

c. Non-Union Payroll Increases

With respect to Fitchburg's non-union payroll increases for both Company and USC personnel, increases of 3.76 percent and 4.82 percent were granted to non-union Company employees and USC employees, respectively, effective January 1, 2007 (Exh. Unitil-RT-1, Sch. RT-7-2 (Rev.)). Management also expressly committed to granting a 3.76 percent increase to non-union Company employees and a 4.00 percent increase to USC employees effective January 1, 2008 (id.). Therefore, the January 2007 and January 2008 non-union increases represent known and measurable changes to test year cost of service.

With respect to the reasonableness of the proposed non-union payroll increases, we must first consider the validity of the Hay Group study. The most recent interim study was performed for the Company in 2005, which indicated that Fitchburg's total compensation packages were approximately ten percent below the average median compensation for all job grades (Exh. AG 6-5, Att. 1). Furthermore, the 2007 annual survey by the Hay Group indicated that Fitchburg's total compensation is still approximately four to 14 percent below the median, depending upon the particular job grade (Exh. DPU-FGE 3-7). Fitchburg has also demonstrated that the annual survey results indicate a market movement in the range of four percent per year, and that Fitchburg continues to lag behind the market median (id.). The Department considers the Hay Group annual survey data results to be credible evidence in evaluating the Company's employee non-union wages because the annual data provides more contemporaneous information on non-union compensation. Despite the lack of a fully-updated study from the Hay Group, the interim survey and annual updates provide a sufficient basis on which to review Fitchburg's compensation levels.

The Attorney General has also argued that the Hay Group study's job evaluation point system does not clearly show a comparison between Fitchburg and companies of a similar size in terms of annual revenues. The record shows that the Hay Group analysis is designed to correct for the size of a particular company through its point system (see Exh. AG 6-5, Att. 1; Tr. 1, at 81-82). In addition, the Department has previously analyzed the Hay Group job evaluation point system and found it to be reliable. See D.T.E. 02-24/25, at 93-94. Accordingly, the Department finds that the Hay Group Study is acceptable and will consider

the results of the study, along with the additional surveys presented by the Company, in determining the reasonableness of Fitchburg's non-union payroll increase.

Finally, the Attorney General argues that the Company has failed to show the required historical correlation between union and non-union increases, where non-union increases had been higher on average than union increases. The Attorney General misconstrues the Department's precedent on historic correlation. While the Department formerly required a showing that a company had a history of granting parity pay increases to management in order to recover a post-test year non-union increase, the Department revised this standard in D.P.U. 1270/1414 such that a post-test year non-union increase required a showing that a correlation had existed historically between union and non-union raises. D.P.U. 1270/1414, at 14. The application of the D.P.U. 1270/1414 standard does not require a demonstration of parity between union and non-union wage and salary increases; non-union increases may be higher than union increases, provided a correlation is shown between the two. D.T.E. 01-56, at 56; Essex County Gas Company, D.P.U. 87-59-A, at 18 (1987); D.P.U. 1270/1414, at 15.

An evaluation of the evidence reveals that annual union wage increases granted between 1998 and 2007 have ranged between zero percent and 4.0 percent (Exh. AG 1-41).[44] Concomitantly, annual non-union salary increases have ranged between 2.3 percent and 5.4 percent (id.). Over the past three years, i.e., 2005 through 2007, union wages increased between 3.5 percent and 4.0 percent each year (id.). Non-union salaries increased between

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[44] During 1998 and 1999, the Company's union and clerical employees received a two percent lump sum payment in lieu of a wage increase (Exh. AG 1-41).

3.7 percent and 4.8 percent each year over that same period (id.). A sufficient correlation exists between union and non-union increases to meet the second part of our standard. In reaching this conclusion, we have taken into consideration Fitchburg's long-term goal of raising non-union salary levels to an industry median, as well as what appears to be an unusual wage distribution during 1998 and 1999.

Concerning the third part of our standard, the Department has found that utilities may offer employee compensation packages that are competitive with other regulated and non-regulated companies to attract and retain skilled employees. D.T.E. 02-24/25, at 95; D.T.E. 01-56, at 57. The results of the 2005 Hay Group interim study, as well as the annual updates, indicate that Fitchburg's pay structure was low compared to other New England and national utilities. By offering executives the mid-point of a salary range paid to employees at regulated and non-regulated companies within Fitchburg's service territory, the Company is able to remain competitive in attracting and retaining these skilled employees. Therefore, the Department finds that the non-union payroll increases are reasonable.

Having found above that the proposed non-union payroll increases (1) are known and measurable, (2) that there is an historical correlation between union and non-union raises, and (3) that the non-union payroll increases are reasonable, the Department will allow the Company to adjust its test year cost of service for the non-union payroll increases. Accordingly, the Company's proposed adjustment is allowed.

4. Conclusion

The total union and non-union payroll adjustment represents an increase to the Company's test year electric division payroll expense of $271,465 (Exh. Unitil-RT-1, Sch. RT-7-2 (Rev.)). Of this amount, $13,140 is assigned to internal transmission, and $258,325 is assigned to base distribution (id.). Accordingly, the Company's proposed adjustment is allowed.

B. Incentive Compensation

1. Introduction

Fitchburg operates three incentive compensation programs: (1) the Unitil Corporation Incentive Plan ("Incentive Plan"); (2) the Unitil Corporation Management Incentive Plan ("Management Plan"); and (3) the Unitil Corporation Restricted Stock Plan ("Stock Option Plan") (Exh. AG 1-35). According to the Company, these plans are designed to provide key management employees, as well as non-union employees of Unitil and its subsidiaries, including Fitchburg, with significant incentives related to the performance of Unitil (id.). The plans are further intended to provide the employees with competitive levels of total compensation when considered with their base salaries (id.).

The Incentive Plan was implemented in 1999 (Exh. DPU-FGE 4-2, Att. 1, at 5). Under the Incentive Plan, eligible employees may receive up to five percent of their base salary as an incentive (id. at 1). Each year, Unitil's compensation committee sets performance goals and the weighted value to be accorded each particular goal (id. at 1-2). In addition, threshold, target, and maximum performance levels are established for the performance goals (id. at 2). If an

employee meets the threshold performance for a particular performance goal, the employee receives 50 percent of the target payout level; if performance is at or above the maximum, the payout is 150 percent of the target payout level (id.).

The Management Plan was established in 1998 (Exh. AG 6-13, Att. 1, at 5). Under the Management Plan, eligible management employees may receive between five and 50 percent of their base salary as an incentive, depending upon their particular job classification (id. at 9). Each year, Unitil's compensation committee sets performance goals and the weighted value to be accorded each particular goal (id. at 2). In addition, threshold, target, and maximum performance levels are established for the performance goals (id. at 2-3). If an employee meets the threshold performance for a particular performance goal, the employee receives 50 percent of the target payout level; if performance is at or above the maximum, the payout is 150 percent of the target payout level (id. at 2-3).

The Stock Option Plan was established in 2003 (Exh. AG 6-13, Att. 2, at 3). Under the Stock Option Plan, a participant may be awarded up to 20,000 shares of Unitil common stock in any one calendar year (id. at 7). The actual number of shares granted is based on the extent to which performance goals are met, using a total weighted factor that is derived from the Management Plan (Exh. AG 6-13, Att. 4, at 3). Shares acquired under this program are to be held solely by the awardee or their successors, and are not to be sold, transferred, pledged as collateral, or otherwise impaired during a specified time as determined by Unitil's compensation committee (Exh. AG 6-13, Att. 2, at 7).

During the test year, Fitchburg's electric division booked $52,005 in Incentive Plan payments made to Company employees (Exh. AG 1-35; RR-AG-51). In addition, the Company's electric division was allocated approximately $447,304 in payments for all three incentive plans, including $82,351 in Stock Option Plan payments (Exh. AG 1-35; RR-AG-51).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the Department should reduce the Company's test year Stock Option Plan expense by $203,371 (Attorney General Brief at 34, citing RR-AG-51).[45] The Attorney General states that the record clearly shows that the stock option awards for USC in 2006 of $457,507 are drastically higher than the stock option awards provided in any of the years 2001 through 2005, which were as follows: (1) $289,345 for 2001; (2) $313,948 for 2002; (3) a negative $64,868 for 2003;[46] (4) $211,905 for 2004; and (5) $316,980 for 2005 (Attorney General Reply Brief at 22-23, citing RR-AG-51).

The Attorney General asserts that the 2006 stock option award represents a 44 percent increase over the stock option award in 2005 (Attorney General Brief at 34). In addition, the Attorney General maintains that the average stock option award for the years 2001 through 2005 was $213,462, and the average stock option award for the years 2001 through 2006 was

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[45] The Attorney General did not comment on brief about either the Incentive Plan or the Management Plan.

[46] The 2003 expense includes an adjustment to recognize forfeitures from the former stock option plan (RR-AG-51).

$254,136 (id., citing RR-AG-51). The Attorney General argues that including the 2006 stock option award of $457,507 increases the average stock option award by 19 percent (id.).

The Attorney General additionally contends that between 2001 and 2005, stock option awards ranged from a negative amount of $64,868 to an expense of $316,980, and the 2006 stock option award of $457,507 presents a drastic increase in the stock option award as compared to the previous five years (id., citing RR-AG-51). The Attorney General contends that Fitchburg cannot claim that the stock option awards serve to compensate employees for a lagging cash compensation structure because the Company fails to provide the analysis used by the Hay Group to show that the Company is lagging behind in the market median for every grade level (Attorney General Reply Brief at 22 n.7, citing Exh. AG 6-5, Att. 1).

The Attorney General urges that the Department examine the historic average incentive compensation expense to determine a representative level of costs, in a manner consistent with the Department's ratemaking treatment of bad debt expense, rate case normalization, and extraordinary storm costs (id. at 23). Using the average stock option awards issued between 2001 and 2006, the Attorney General proposes that the Department should reduce the Company's proposed Stock Option Plan expense by $203,371, so that rates include what she considers to be a more representative and reasonable level of costs that is consistent with Fitchburg's recent stock option history (Attorney General Brief at 34).

b. Fitchburg

The Company claims that the Attorney General's proposed adjustment is erroneous as a matter of both fact and law, and that there is no evidentiary basis for her assertion that the 2006

Stock Option Plan expenses were excessive (Fitchburg Brief at 46). Furthermore, the Company argues that the historic five-year average stock option payments do not represent current and future levels of expense (id.). First, Fitchburg notes that it terminated its previous stock option plan and switched to the present Stock Option Plan during that period (id.). The Company explains that because each award under the Stock Option Plan vests over four years, the full expense impact of the program did not appear on Fitchburg's books until 2006 (id., citing Exh. AG 6-13, Att. 2; Tr. 7, at 989-991). Second, the Company argues that because no stock option awards were granted in 2002, the booked Stock Option Plan expense during the years 2002 through 2004 was artificially reduced from what it considers to be normal levels (id., citing Tr. 7, at 989-991). The Company concludes that this artificial expense level, combined with the four-year ramp-up of Stock Option Plan expenditures, caused the stock option expenses for the previous five-year period to be much lower than normal (id., citing Tr. 7, at 989-991).

Finally, the Company argues that the Attorney General's proposal to disallow $203,371 in Stock Option Plan expenses is erroneous because the proposed adjustment exceeds the total annual amount of this expense allocated to Fitchburg's electric division (id.). Fitchburg explains that during 2006, only 18 percent, or $82,351, of total Stock Option Plan expense was assigned to its electric division (id. at 46-47, citing RR-AG-51).

3. Analysis and Findings

The Department has traditionally allowed incentive compensation expenses (i.e., bonuses) to be included in utilities' cost of service so long as they are (1) reasonable in amount, and (2) reasonably designed to encourage good employee performance. D.P.U. 89-194/195,

at 34. In order for an incentive plan to be reasonable in design, it must both encourage good employee performance and result in benefits to ratepayers. D.P.U. 93-60, at 99. As a rule, if a company's employee-performance standards are based at least in part on job performance of the individual employee, rather than based solely on the company's financial performance, the incentive plan is deemed to reasonably encourage good employee performance. The Department has stated that if incentive compensation is tied only to financial performance, the benefit to ratepayers is unclear. D.P.U. 89-194/195, at 34. The Department has also disallowed incentive compensation for senior management if the company's management failed to show itself worthy of bonuses. D.P.U. 85-266-A/271-A at 111-112.

Between 2001 and 2006, awards made to Fitchburg and USC employees under both the Stock Option Plan and its predecessor plan ranged from a negative $77,556 in 2003 to $457,507 in 2006 (RR-AG-51). Fitchburg introduced the present Stock Option Plan in 2003, which was phased in over four years (Exh. AG 6-13, Att. 2; Tr. 7, at 989-991). Taking into consideration the abnormal results for 2002 under the previous stock option plan, the Department has reviewed the total stock option awards issued, placing greater weight on the more recent years' experience. Although the Company did not provide the analysis used by the Hay Group to support its analysis of the role of its incentive programs as a component of its overall cash compensation structure, the Department has accepted the results of the Hay Group interim study and annual updates. See Section IV.A.3.c. above. Based on our review, the Department finds that the Company's annual stock option awards are not so variable as to warrant normalization.

Therefore, the Department declines to adopt the Attorney General's proposal. The Department finds that the test year amount of Stock Option Plan awards is reasonable.

We now address the issue of whether the Stock Option Plan is reasonably designed to encourage good employee performance. The Department has questioned the benefit of incentive compensation plans based solely on a company's financial performance. See D.T.E. 03-40, at 126. While Fitchburg's financial performance is one performance measure used in the Stock Option Plan, it is not the sole criterion on which payments are based. The Stock Option Plan includes a wide array of performance measures that are unrelated to the Company's overall financial performance, but are designed to encourage activities such as cost-containment and electric system reliability, which enhances value to customers (Exh. AG 6-13, Att. 2). Therefore, the Department finds that the Company's Stock Option Plan is reasonably designed to encourage good employee performance. Having found that Fitchburg's Stock Option Plan (1) is reasonable in amount, (2) is reasonably designed to encourage good employee performance, and (3) will result in benefits to customers, we will allow Fitchburg to include its allocated share of Stock Option Plan expense in cost of service.

C. Employee Levels

1. Introduction

As of the end of the test year, Fitchburg had a total of 77 employees, consisting of 51 union employees and 26 non-union employees (Exh. AG 1-44, Att. 1, at 2). As of August of 2007, the Company had a total of 71 employees, consisting of 41 union employees and 30 non-union employees (id.). According to the Company, the 2006 employee count includes

three temporary contract workers and four inactive employees who were not included in the 2007 employee count (Tr. 7, at 976).[47]

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company's workforce has declined from test year levels (Attorney General Brief at 30-31). According to the Attorney General, Fitchburg had an average monthly count of 78 employees during the test year, including temporary and inactive employees (id. at 30, citing Exh. AG 1-44, Att. 1, at 3). The Attorney General contends that since the end of the test year, the number of Company employees had declined to 74, with 71 full-time employees as of August 2007 (id. at 30-31, citing Exh. AG 1-44, Att. 1, at 2; RR-AG-50). The Attorney General contends that this reduction is the result of restructuring in the Company's substation and meter organizations, as well as the closure of the walk-in payment center (id. at 31, citing Exh. AG 6-11; Attorney General Reply Brief at 19-20).

The Attorney General maintains that regardless of how Fitchburg may choose to label individual employees or positions, the fact remains that the total number of Company employees has declined by five percent since the test year, which, in turn, will decrease payroll-related expenses (Attorney General Brief at 30-31; Attorney General Reply Brief at 19). The Attorney General further argues that even though Fitchburg did not propose any employee reductions in its last base rate proceeding, USC eliminated 16 employees just after the Department's Order in

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[47] According to the Company, inactive employees are defined as employees who are on various forms of leave, including leave for short- or long-term disability and leave under the Family Medical Leave Act (Tr. 8, at 1014).

D.T.E. 02-24/25, which saved the Company what the Attorney General estimates to be $320,000 per year in payroll-related costs (Attorney General Reply Brief at 20 n.5, citing Tr. 1, at 16-18). The Attorney General characterizes the Company's employee reduction as a significant, known and measurable, and permanent decrease, and thus proposes that the Department reduce the Company's pro forma wage and salary expense by five percent (Attorney General Brief at 31, citing Nantucket Electric Company, D.P.U. 88-161/168, at 66-67 (1989); Dedham Water Company, D.P.U. 84-32, at 17 (1984); Attorney General Reply Brief at 20).

b. Fitchburg

Fitchburg contests the Attorney General's proposed adjustment for employee levels (Fitchburg Brief at 37-38; Fitchburg Reply Brief at 15-17). First, the Company argues that the distinction between active and inactive employees is relevant and important to understanding the data contained in Exhibit AG 1-44 and Record Request AG-50 (Fitchburg Brief at 38; Fitchburg Reply Brief at 15). Fitchburg contends that while Exhibit AG 1-44 provides the count of both active and inactive employees, the data in Record Request AG-50 are based on the number of active employees only (Fitchburg Reply Brief at 15). The Company argues that the actual employee reduction was only 2.7 percent, which it considers to be well within the ebb and flow of employee hiring and retirements (Fitchburg Brief at 38).

Second, the Company disputes the Attorney General's reasoning that the closure of the walk-in center resulted in employee reductions (id.; Fitchburg Reply Brief at 16). Fitchburg claims that all of the employees formerly operating the walk-in center remained with the

Company in different capacities, and that the reorganization of its meter and substation organizations merely represents an interim configuration at this time (Fitchburg Brief at 38-39, citing Exhs. AG 6-11, Att. 2, at 2; AG 6-11, Att. 3, at 1; Fitchburg Reply Brief at 16).

Finally, Fitchburg maintains that, contrary to the Attorney General's assertions, the employee reductions at USC were not prompted by a desire for a "windfall" on the Company's part, but rather resulted from escalating employee-related costs (Fitchburg Reply Brief at 16, citing Tr. 1, at 18). The Company contends that there is no evidence that Unitil's decision to engage in staffing reductions at USC predated the 2002 rate cases for either Massachusetts or New Hampshire, and that granting the Attorney General's request would have the unintended consequence of discouraging companies from engaging in cost-reduction activities between rate cases (Fitchburg Brief at 39; Fitchburg Reply Brief at 16-17).

3. Analysis and Findings

Employee levels routinely fluctuate because of retirements, resignations, hirings, terminations, and other factors. Massachusetts-American Water Company, D.P.U. 88-172, at 12 (1989); D.P.U. 1270/1414, at 16-17. In recognition of this consideration, the Department generally determines payroll expense on the basis of test year employee levels, unless there has been a significant post-test year change in the number of employees that falls outside the normal ebb and flow of a company's workforce. The Berkshire Gas Company, D.P.U. 90-121, at 80-81 (1990); D.P.U. 88-172, at 12.

Fitchburg's employee count for 2007 includes only active permanent employees; contract workers and inactive employees are not included in the total (Tr. 7, at 976). With the

addition of three inactive employees, the 2007 employee count rises to 74 (see Exh. AG 1-44, Att. 1, at 2; RR-AG-50). This represents a reduction of less than four percent from the 77 Company employees as of the end of the test year (see Exh. AG 1-44, Att. 1, at 2). The Department is unpersuaded that either the number of employees or the percentage change in employee levels is outside the normal ebb and flow of hirings, retirements, resignations, or departures as to trigger the need for an adjustment to overall payroll expense.

The Attorney General offers no evidence to support her contention that Fitchburg failed in its last base rate case to make pro forma reduction in costs associated with a corporate reorganization and subsequent employee reduction (see Attorney General Reply Brief at 20, citing Tr. 1, at 16-18). Conversely, Fitchburg stated that Unitil's restructuring plans had not been finalized until after the Department's decision in D.T.E. 02-24/25, and were made in response to a review of the Unitil system companies' operating and financial conditions, especially with regard to escalating payroll expenses (Exhs. Unitil-MHC-1, at 7-8; DPU-FGE 1-28; Tr. 1, at 18-21). A company is entitled to engage in cost-saving measures regardless of the timing of its respective rate cases. Even assuming, ad arguendo, that Unitil timed its corporate restructuring in conjunction with the ongoing rate cases for its Massachusetts and New Hampshire operating subsidiaries, the earned return on equity ("ROE") for the Company's electric division for the period 2003 through 2006 does not appear to be so out of line with the ROE allowed in D.T.E. 02-24/25 as to sustain a charge of excess profits (see Exh. AG 1-12, Att. 1). Furthermore, to the extent that cost-containment measures may

result in "windfall" profits to a company, the Attorney General — as well as the Department — has recourse under G.L. c. 164, § 93 ("Section 93").[48]

Based on the foregoing analysis, the Department finds that the evidence does not support the Attorney General's proposal. Accordingly, the Department declines to reduce the Company's payroll expense by an across-the-board five percent.

D. Property and Liability Insurance

1. Introduction

During the test year, Fitchburg booked $218,960 in property and liability insurance expense to its electric division, consisting of $197,065 in direct insurance charges and $21,895 in insurance expense allocated from USC (Exh. Unitil-RT-1, Sch. RT-7-4). The Company carries a variety of property and liability insurance; while most of Fitchburg's insurance coverage is premium-based, the Company is self-insured for the first $500,000 of general liability insurance coverage (Exh. Unitil-RT-1, WPs 7-4.1, 7-4.2; Tr. 7, at 898).[49] The total insurance expense allocated to Fitchburg's electric division, plus the portion of self-insurance allocated to electric operations, is then reduced for capitalizable insurance (Exh. Unitil-RT-1, WP 7-4.1). Property and liability insurance charges from USC are first allocated to Fitchburg on the basis of a labor allocator of 43.41 percent, then reduced by 31.57 percent for

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[48] Section 93, permits the Department to investigate complaints, and order reductions, related to electric rates or service quality.

[49] The Company's premium-based insurance coverage includes: (1) all-risk; (2) crime; (3) kidnapping and extortion; (4) transit; (5) workers' compensation; (6) excess liability; (7) directors and officers liability; and (8) fiduciary (Exh. Unitil-RT-1, WPs 7-4.1, 7-4.2, 7-4.3; Tr. 7, at 896-898).

capitalizable insurance, and finally allocated to Fitchburg's electric operations using a 63.02 percent revenue allocator (Exhs. Unitil-RT-1, at 25; Unitil-RT-3, at 1; Unitil-RT-1, WPs 7-4.1, 7-4.2).[50]

Fitchburg based its proposed self-insurance expense on the five-year average self-insured claims payments allocated to its electric division between January 1, 2002, and November 30, 2004, plus the actual claims payments associated with its electric division from December 2004 through December 2006 (Exh. Unitil-RT-1, WP 7-4.1, at 2 (Rev.)). In its initial filing, the Company proposed an increase of $37,263 in direct insurance expense and an increase of $262 in insurance expense allocated to its electric operations from USC, for a total increase of $37,525 (Exh. Unitil-RT-1, Sch. RT-7-4). Fitchburg subsequently revised this proposed adjustment to an increase of $38,574 in direct insurance expense and an increase of $1,477 in insurance expense allocated to its electric operations from USC, for a total increase of $40,051 (Exh. Unitil-RT-1, Sch. RT-7-4 (Rev.)). Of this amount, the Company has assigned $37,168 to base distribution and $2,884 to internal transmission (id.). This proposed expense is based on the current premiums associated with Fitchburg's premium-based insurance programs, as well as what the Company considers to be a representative level of self-insurance claims history (Exhs. Unitil-RT-1, at 24-25; Unitil-RT-1, WPs 7-4.1 (Rev.), 7-4.2 (Rev.)).

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[50] All of USC's expenses are billed out to the affiliate companies based on a net revenue allocator (see Exh. Unitil-RT-3, at 1, 6; Tr. 2, at 266-267).

2. Positions of the Parties

a. Attorney General

The Attorney General contests Fitchburg's proposed self-insurance expense adjustment (Attorney General Brief at 35). According to the Attorney General, the Company's five-year self-insurance claims history is unsupported because Fitchburg did not specifically track or assign claims costs between its electric and gas divisions for the years 2002 through 2004, but, rather, allocated those costs on the basis of a general allocator (id., citing Exh. Unitil-RT-1, WP 7-4.1; Tr. 2, at 264-265; see also Attorney General Reply Brief at 23-24). Consequently, the Attorney General maintains that Fitchburg has not demonstrated that the level of self-insurance claims assigned to its electric division is accurate or reasonable (Attorney General Brief at 35).

The Attorney General notes that the Company only began tracking and allocating self-insurance claims expense by division during 2004 (id.). Using the self-insurance claims data for 2005 and 2006, the only full years of claims history on the record, the Attorney General determines that the Company's average electric division-specific self-insured claims is $20,874 (id., citing Exh. Unitil-RT-1, WP 7-4.1; Tr. 2, at 265). Reasoning that this self-insurance expense level is the only one that is supported by the evidence, the Attorney General proposes to reduce Fitchburg's cost of service by $19,707 to recognize what she considers to be the actual electric division claims experience (id.; Attorney General Reply Brief at 23-24).

b. Fitchburg

Fitchburg argues that self-insurance claims expense is volatile and can vary significantly from year-to-year (Fitchburg Brief at 51). The Company maintains that its use of a several year average of historic claims expense to develop a representative level of self-insurance expense is reasonable and has been previously accepted by the Department (id., citing D.T.E. 05-27, at 137). Fitchburg contends that it has properly allocated its self-insurance claims between the Company's gas and electric divisions on the basis of specific claims paid during the test year (Fitchburg Reply Brief at 20, citing Exh. Unitil-RT-1, WP 7-4.1, at 2).

Moreover, the Company maintains that even if the Department were to accept the Attorney General's argument, her proposed adjustment is overstated. Fitchburg contends that the Attorney General's proposed adjustment is incorrectly based on the five-year average claims expense for both gas and electric operations of $40,581, versus the Company's electric division allocation of $24,248 (Fitchburg Brief at 51 n.9). The Company states that correcting the Attorney General's calculations reduces the Attorney General's requested reduction to $3,374 (id.; Fitchburg Reply Brief at 20).

3. Analysis and Findings

The Department recognizes that because self-insured damage claims vary from year-to-year, limiting recovery to test year levels may not produce a representative level of claims expense on a forward-looking basis. D.T.E. 05-27, at 137; see also D.P.U. 87-59, at 35-40. Therefore, it is appropriate to normalize the expense over a period of time that is

considered representative of the pattern of self-insurance claims expected to be incurred in the future.

The Company proposes the use of five years of claims history to develop a normalized level of self-insurance expense, while the Attorney General proposes to use two years of claims history. The Department finds that the use of only two years of claims data are insufficient to develop a representative level of self-insurance payments. Instead, the Department finds that five years of claims data provide a reasonable basis to develop a representative level of self-insurance expense. See D.T.E. 05-27, at 137-138; D.P.U. 87-59, at 35-40. Accordingly, the Department accepts Fitchburg's proposed five-year claims history as a basis for developing its self-insurance expense for ratemaking purposes.

Turning to the apportionment of self-insured claims between Fitchburg's gas and electric divisions, the Company proposes the use of its test year ratio of 59.75 percent electric and 40.25 percent gas to develop a representative level of self-insurance expense for its electric division (Exh. Unitil-RT-1, WP 7-4.1 (Rev.)). The Company's actual claims history between December of 2004, when it began maintaining separate gas and electric division self-insurance accounts, and December of 2006 indicates a total of $50,929 in electric division claims and $45,227 in gas division claims (id.). Thus, electric division self-insurance claims represented 52.97 percent of total self-insurance claims during this period. The Department finds that the December 2004 through December 2006 claims history provides a more representative level of electric division claims expense than the test year. Therefore, the Department finds, based on

an allocator derived from December 2004 through December 2006, that the Company's electric division self-insurance expense for ratemaking purposes is $21,496.

For direct Company insurance expense, application of the current annual premiums to the premium-based property coverages produces a total direct property insurance expense of $63,375, of which 57.10 percent, or $36,187, is allocated to Fitchburg's electric division (id.; Exh. AG 6-12). Application of the current annual premiums to the premium-based liability coverages produces a total direct liability insurance expense of $456,987, of which 63.02 percent, or $287,993, is allocated to the Company's electric division (Exh. Unitil-RT-1, WP 7-4.1, at 1 (Rev.)). With the addition of $21,496 in general liability claims, the total electric division property and liability insurance expense is $345,676, of which 31.57 percent, or $111,895, is capitalized,[51] for a total Company direct property and liability insurance expense of $233,781 (id.). This amount represents an increase of $36,716 to test year cost of service.

For property and liability insurance expense allocated from USC, application of the current annual premiums to the premium-based property and liability coverages produces a total direct property and liability insurance expense of $124,848, of which 43.41 percent, or $54,197, is allocated to Fitchburg (Exh. Unitil-RT-1, WP 7-4.2 (Rev.)). Of this amount, 31.57 percent, or $17,110, is capitalized, leaving a net allocated USC property and liability

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[51] The Department derived this capitalization ratio based on the weighted average of the Company's capitalization factors used for property insurance and liability insurance.

insurance expense of $37,087 (id.). Of this amount, 63.02 percent, or $23,372, is allocated to Fitchburg's electric division, resulting in an increase of $1,477 to test year cost of service (id.).

Based on the foregoing analysis, the Company's total property and liability insurance expense chargeable to O&M expense is $257,153, an increase of $38,193 to test year cost of service. Of this increase, $2,767 is assigned to internal transmission and $35,426 is assigned to base distribution rates.[52] As noted above, Fitchburg had proposed to assign $37,168 to base distribution rates (Exh. Unitil-RT-1, Sch. RT-7-4 (Rev.)). Accordingly, the Department will reduce the Company's proposed cost of service by $1,742.

E. Rate Case Expense

1. Introduction

In its initial filing, Fitchburg estimated it would incur $990,000 in rate case expense (Exhs. Unitil-RT-1, at 37; Unitil-RT-1, Sch. RT-7-13; Tr. 7, at 839). On January 22, 2008, the Company reported that its rate case expense was $656,299, including $31,190 in what the Company represented were fixed fees for the remainder of the case through the compliance phase (Exhs. Unitil-RT-1, Sch. RT-7-13 (Rev.); AG 10-13 4th Supp.). The Company's rate case expense includes: (1) legal representation; (2) costs related to analysis of accounting and marginal cost of service, rate design, cost of capital, and revenue requirements; and (3) other

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[52] Fitchburg allocates 10.5011 percent of property insurance expense and 6.9256 percent of liability insurance expense to internal transmission (Exh. Unitil-RT-1, WP 3-1.2, at 1). Based on the property and liability insurance expense levels being approved in this Order, the Department has calculated a weighted average internal transmission allocation factor of 7.245 percent, which produces an internal transmission allocation of $2,767.

associated costs such as copying, supplies, and delivery charges (see, e.g., Exhs. Unitil-RT-1, Sch. RT-7-13 (Rev.); AG 10-13). Fitchburg proposes to normalize its rate case expense over a six-year period, based on the average length of periods between the filing dates of its last five prior electric rate cases (Exhs. Unitil-RT-1, at 36-37; AG 3-1; Tr. 7, at 844).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the Department should disallow recovery of rate case expense for all outside consulting and legal services because Fitchburg failed to demonstrate that it contained its rate case expense (Attorney General Brief at 20-23; Attorney General Reply Brief at 15-16). Specifically, the Attorney General contends that Fitchburg was on notice that it was required to engage in a competitive bidding process for its outside consulting and legal services and it failed to do so (Attorney General Brief at 22; Attorney General Reply Brief at 15). The Attorney General asserts that the facts as presented by the Company do not provide adequate justification for exemption from the requirement to solicit competitive bids (Attorney General Reply Brief at 14). According to the Attorney General, the Company's outside services costs must be disallowed in order to treat customers fairly and to ensure that the Department's orders have meaning (id. at 15-16).

The Attorney General further points out that projected rate case expense, including those costs associated with the compliance phase of this Order, must be disallowed (id. at 16, citing D.T.E. 02-24/25, at 106; D.T.E. 01-56, at 75). The Attorney General points out that while the Department will not preclude recovery of fixed fees for the completion of compliance filing

work, the reasonableness of those fixed fees must be demonstrated by Fitchburg (id., citing D.T.E. 02-24/25, at 196).

The Attorney General also contends that, contrary to Department precedent, the Company is proposing to amortize, rather than normalize, its rate case expense (Attorney General Brief at 23-24, citing, e.g., D.T.E. 03-40, at 163). She argues that the Department should require Fitchburg to normalize any rate case expenses it is permitted to recover (id.).

In addition, the Attorney General asserts that the Department should reject the Company's proposal to use a six-year normalization period, and should instead apply an eight-year normalization period (id. at 24). Specifically, the Attorney General argues that according to Department precedent, the appropriate period for recovery of rate case expense is determined by averaging the length of periods between the filing dates of the Company's last four rate cases, including the instant case, rounded to the nearest whole number, and that Fitchburg is inappropriately calculating the filing dates between its last five rate cases (id. at 24-25, citing e.g., D.T.E. 05-27, at 163 n.105). The Attorney General contends that the Company's request to use a longer rate case filing history is unjustified as an attempt to obtain "special treatment" for Fitchburg (id. at 25).

b. Fitchburg

The Company asserts that it made extensive efforts to control its rate case expenses (Fitchburg Brief at 63). The Company further asserts that its efforts to control such costs led it to the decision not to conduct competitive bidding processes (id.). Fitchburg contends that it considered several qualitative factors in determining not to conduct a competitive bidding

process, including: (1) the experience and expertise of each consultant; (2) the value of each consultant's familiarity with the Company; (3) development of models and relevant historical information about the Company; (4) representation of Fitchburg or its affiliates in prior base rate proceedings; and (5) the expected costs of each consultant compared to the cost of similar services in prior cases (id. at 64, citing Exh. DPU-FGE 1-3). The Company argues that its reasoned decision-making process obviated the need for competitive bidding (id. at 65). Fitchburg also contends that it adequately justified its decision to forego the competitive bidding process consistent with Department precedent (id., citing D.T.E. 05-27, at 241; D.T.E. 02-24/25, at 192-193; Fitchburg Reply Brief at 12, citing D.T.E. 05-27, at 241). As a result of these efforts, the Company argues that its actual rate case expense of $656,299 is 34 percent below its originally-estimated expense, as well as 14 percent below the actual expense for its most recent electric division rate case and 56 percent below the expense for the combined gas and electric rate case expense in that proceeding (Fitchburg Reply Brief at 11, citing D.T.E. 02-24/25, at 184).

The Company contends that, in conformance with Department precedent, it has included in its rate case expense fixed fee charges with supporting documentation (id. at 14). The Company argues that this documentation, including detailed invoices with hours and rates, will allow the Department to assess the reasonability of the fixed fee charges (id.).

Fitchburg states that, contrary to the Attorney General's contention, the Company intends to normalize its rate case expense (Fitchburg Brief at 60). In calculating its normalization period for recovery of rate case expense, Fitchburg used the average interval

between the filing dates of the Company's last five electric rate cases, rather than the last four rate cases (Exhs. Unitil-RT-1, at 37; Unitil-RT-1, Sch. RT-7-13). The Company asserts that using five previous rate cases provides a more complete history of its filed rate cases (Fitchburg Brief at 61, citing Exh. Unitil RT-1, at 37). Fitchburg further asserts that it is appropriate to use an alternative method when conditions indicate that the Department's current precedent does not result in a reasonable or representative outcome (Exh. AG 3-2).

3. Analysis and Findings

a. Introduction

The Department allows recovery for rate case expenses if the expenses are known and measurable. D.T.E. 01-56, at 75; D.P.U. 84-32, at 17. The overall level of rate case expense among utilities has been, and remains, a matter of concern for the Department. D.T.E. 03-40, at 147; D.T.E. 02-24/25, at 192; D.T.E. 98-51, at 57. The Department has cautioned that rate case expense, like any other expenditure, is an area where companies must seek to contain costs. D.T.E. 03-40, at 147-148; D.T.E. 02-24/25, at 192; D.P.U. 96-50 (Phase I) at 79. Below, we address competitive bidding, the appropriateness of various rate case expenses, and the appropriate normalization period.

b. Competitive Bidding

The Department has consistently emphasized the need to obtain competitive bids for consultant services as an important part of a company's overall strategy to contain rate case expense. See e.g., D.T.E. 05-27, at 158-159; D.T.E. 03-40, at 148; D.T.E. 02-24/25, at 192. The Department has found that if a company elects to secure outside services for rate case

expense, it must engage in a "structured, objective competitive bidding process for these services." D.T.E. 03-40, at 153. The Attorney General asserts that because Fitchburg failed to conduct competitive bidding processes for outside legal and consulting services, the Department should disallow all of its rate case expenses associated with these services. The Company, on the other hand, asserts that the Department has recognized that an outside consultant's long-term relationship and institutional experience can be a proxy for competitive bidding.

We agree with the Attorney General that the Company was on notice that it was required to engage in a competitive bidding process. Contrary to Fitchburg's interpretation that a long-term relationship and institutional knowledge are sufficient to obviate the need for any competitive bidding process, the Department noted in D.T.E. 05-27, at 158-159, that 82 percent of that company's outside services were obtained as the result of a structured competitive bidding process. In the instant proceeding, Fitchburg did not hire any outside consultants as a result of a structured bidding process, and instead relied solely on the long-standing relationship and institutional knowledge that each consultant had with Fitchburg (Exh. DPU-FGE 1-8).

The Company's reliance on a selective reading of the Bay State Order is also misplaced. Specifically, Fitchburg argues that the Department granted recovery of a legal retainer based on an outside legal firm's long-term relationship and institutional experience with the company, and stated that such relationship and experience could be a proxy for competitive bidding. However, the Department was reviewing the appropriateness of an annual retainer for legal services provided at a fixed rate and that were not related to rate case expense. D.T.E. 05-27,

at 239-242. The Department has previously stated, and we again emphasize, that when engaging outside rate case services, the very discipline of having to submit a competitive bid in a structured and organized process keeps even a consultant with a stellar past performance from taking the relationship for granted. D.T.E. 03-40, at 152. The Department has also noted that no harm is done by competition to provide services, and some gain in efficiency is likely. Id. The Department has stated that obtaining competitive bids does not mean that a company must then necessarily retain the services of the lowest bidder; rather, the bidding and qualification process merely provides a benchmark for reasonableness of the cost of the services sought. Id. Further, while the qualitative factors used by Fitchburg are appropriate, the Department expects them to be used within a competitive bidding process. See Id.

We recognize that the actual rate case expenses for outside consulting and legal services in this case are comparable to those in similar rate proceedings and that any gain resulting from a competitive bidding process may have been slight (see Exh. DPU-FGE 1-3, Att. 1). As such, the Department will not disallow all of the rate case expense for outside legal and consulting services as requested by the Attorney General. Nonetheless, Fitchburg's disregard of Department directives concerning rate case expense will be considered in determining the appropriate return on common equity. See Section V.B. below.[53] The Department further

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[53] Fitchburg was on notice that failure to comply with Department requirements could impact its return on equity. See D.T.E. 02-24/25, at 231 (Company's subpar management performance and failure to provide complete information required that return on equity be set at low end of range of reasonableness).

reiterates that it expects companies conducting rate case proceedings to undertake competitive bidding processes for outside consulting and legal services.

c. Various Rate Case Expenses

The Department has directed companies to provide all invoices for outside rate case services that detail the number of hours billed, the billing rate, and the specific nature of the services performed. D.T.E. 03-40, at 157; D.T.E. 02-24/25, at 193-194; D.T.E. 01-56, at 75; D.T.E. 98-51, at 61; D.P.U. 96-50 (Phase I) at 79. Further, we have stated that failure to provide this information could result in the Department's disallowance of all or a portion of rate case expense. D.T.E. 02-24/25, at 193; D.T.E. 96-50 (Phase I) at 79. In the present case, Fitchburg's invoices were properly itemized for allowable expenses.

We note that the Company has included in its rate case expense $31,190 in fixed fees related to completion of the rate proceeding. The Department's longstanding precedent allows only known and measurable changes to test-year expenses to be included as adjustments to cost of service. D.T.E. 03-40, at 161; D.T.E. 02-24/25, at 195; D.T.E. 98-51, at 61-62. Proposed adjustments based on projections or estimates are not known and measurable, and recovery of those expenses is not allowed. D.T.E. 03-40, at 161-162; D.T.E. 02-24/25, at 196; D.T.E. 01-56, at 75.

In this case, the Company proposes to recover fixed fees for three items: (1) legal services; (2) accounting study, marginal cost study, and rate design issues; and (3) revenue requirements consulting (Exh. AG 10-13, 4th Supp.). In each instance, the Company provided an invoice outlining the tasks to be performed and the hours to be spent on completion (id.).

Thus, we determine that the reasonableness of the fixed fees is supported by sufficient evidence and is consistent with Department precedent. Cf. D.T.E. 03-40, at 162-163; D.T.E. 02-24/25, at 196. Therefore, the Department permits the fixed fee charges for completion of the rate proceeding.

d. Normalization of Rate Case Expenses

The proper method to calculate a rate case expense adjustment is to determine the rate case expense, normalize the expense over an appropriate period, and then compare it to the test year level to determine the adjustment. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163; D.T.E. 02-24/25, at 197; D.T.E. 98-51, at 62; D.P.U. 95-40, at 58. The Department's practice is to normalize rate case expenses so that a representative annual amount is included in the cost of service. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163; D.T.E. 02-24/25, at 191; D.T.E. 01-56, at 77; D.T.E. 98-51, at 53; D.P.U. 96-50 (Phase I) at 77; The Berkshire Gas Company, D.P.U. 1490, at 33-34 (1983). Normalization is not intended to ensure dollar-for-dollar recovery of a particular expense; rather, it is intended to include a representative annual level of rate case expense. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163-164; D.T.E. 02-24/25, at 191; D.P.U. 96-50 (Phase I) at 77. The Department determines the appropriate period for recovery of rate case expense by taking the average of the intervals between the filing dates of a company's last four rate cases, including the present case, rounded to the nearest whole number. D.T.E. 05-27, at 163 n.105; D.T.E. 03-40, at 164 n.77; D.T.E. 02-24/25, at 191. If the resulting normalization period is deemed unreasonable, or if the company has an inadequate rate case filing history, the Department will determine the

appropriate normalization period based on the particular facts of the case. South Egremont Water Company, D.P.U. 86-149, at 2-3 (1986).

On the issue of normalization versus amortization, normalization is not intended to ensure dollar-for-dollar recovery of a particular expense. Rather, the amount in rates is intended to represent a representative annual level of expense. Thus, normalization places back onto shareholders a certain degree of risk that should normally be expected in the course of operations. Milford Water Company, D.P.U. 92-101, at 48-49 (1992); Nantucket Electric Company, D.P.U. 91-106/138, at 20 (1991). In contrast, amortization implies dollar-for-dollar recovery of an expense, as would occur in the case of an extraordinary loss. D.P.U. 85-266-A/271-A at 95-99. The record shows that Fitchburg is proposing to normalize its rate case expense consistent with Department precedent (Exh. Unitil-RT-1, at 36, Sch. RT-7-13).[54]

With respect to the normalization period, the Company argues that its use of the average intervals between five rate cases, rather than four rate cases, provides a more complete history of its rate case filing history (Fitchburg Brief at 61; Exh. Unitil-RT-1, at 37). Fitchburg, however, was unable to provide any Department precedent in support of its method

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[54] A review of the transcript reveals that the basis of the dispute between the Attorney General and Fitchburg may have been one of semantics (Tr. 7, at 840-843). In any event, if the Company were proposing to amortize its rate case expense, the Department would disallow such recovery method based on its long-standing precedent. D.P.U. 91-106/138, at 19-21.

(Exh. AG 3-2; Tr. 7, at 844).[55] The Attorney General asserts that Fitchburg did not provide adequate justification for departing from the Department's well-established standard (Attorney General Brief at 25, citing Tr. 7, at 844; Exh. AG 3-2). We agree. A rate case normalization period of eight years, while not common under traditional cost-of-service regulation, is not unusual. In fact, companies instituting performance-based regulation ("PBR") will have rate case normalization periods based on the terms of their respective PBR plans, which are typically ten years. D.T.E. 05-27, at 164; D.P.U. 03-40, at 164-165; D.T.E. 01-56, at 77. Based on Fitchburg's history of electric rate case filings, we find that a normalization period of eight years[56] is reasonable and appropriate and that no deviation from our precedent is warranted.

4. Conclusion

Fitchburg has requested recovery of rate case expense of $656,299. Based on the findings above, the Department concludes that the reasonable level of rate case expense is $656,299, and that the correct level of normalized rate case expense is $82,037 ($656,299

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[55] Fitchburg noted it had previously proposed alternative methods of normalization (Exh. AG 3-2, citing D.T.E. 99-118 and Fitchburg Gas and Electric Light Company, D.P.U. 84-145 (1984); Tr. 7, at 844-846). In D.T.E. 99-118, the Department rejected Fitchburg's proposed method and stated that it was inconsistent with the Department's standard. D.T.E. 99-118, at 40. The second proceeding involved a rate case settlement between the Attorney General and the Company; hence, the Department did not specifically address normalization of rate case expense. See D.P.U. 84-145.

[56] Including the present case (filed August 17, 2007), Fitchburg's most recent rate case proceedings are: D.T.E. 02-24/25, filed May 17, 2002; D.T.E. 99-118, a petition filed pursuant to Section 93, by the Attorney General on December 31, 1999; and Fitchburg Gas and Electric Light Company, D.P.U. 84-145 (1984), filed July 16, 1984. The differences between these cases (5.25 years plus 2.38 years plus 15.47 years), divided by three and rounded to the nearest whole number of years, results in a normalization period of eight years (see Exh. AG 3-1, Att. 1).

divided by eight years). This represents a decrease of test year cost of service of $17,899 ($82,037 minus $99,936). Because Fitchburg has proposed a normalized rate case expense of $31,324, the Company's cost of service will be reduced by $49,223.

F. Bad Debt

1. Introduction

The Department permits a representative level of bad debt (i.e., uncollectible expense) to be included in distribution rates. During the test year, Fitchburg booked $240,081 in bad debt expense associated with base distribution delivery service (Exh. Unitil-RT-1, Sch. RT-7-5). The Company has proposed a net increase of $175,989 to base distribution delivery cost of service associated with bad debt (id.).

Fitchburg recovers (1) bad debt associated with retail distribution service through base rates, and (2) bad debt associated with purchased electricity through basic service rates. The Company proposed to calculate bad debt to be recovered through base rates by dividing its delivery-related net write-offs for the years 2004 through 2006 by its delivery-related retail billed revenues for that same period, resulting in a bad debt ratio of 1.14 percent (id.). The Company then multiplied the bad debt ratio of 1.14 percent by test year delivery-related retail billed revenues, adjusted for the revenue increase calculated in the current rate case, totaling $37,594,176 (id.). This produced an uncollectible revenue amount of $428,574 (id.). Next, the Company assigned 2.9174 percent to the uncollectible revenue assignment to internal

transmission (id.). This results in an adjustment of $175,989 to the test year level of delivery bad debt expense of $240,081 (id.).[57]

2. Positions of Parties

a. Attorney General

The Attorney General argues that the Company's proposal to collect $428,574 annually for delivery-related bad debt expenses should be denied because the Company has overstated its net write-off ratio (Attorney General Brief at 27). According to the Attorney General, the Department does not permit supply-related bad debt to be included in distribution base rates, because supply-related bad debt is recovered through default service rates (id. at 28, citing Fitchburg Gas and Electric Light Company, D.T.E. 05-GAF-P4/06-28, at 7 (2006)). The Attorney General maintains that Fitchburg's calculations improperly include $194,448 in supply-related net write-offs incurred during 2004 and 2005 (id. at 29, citing Exh. Unitil-RT-1, WP 7-5, at 1). The Attorney General argues that by excluding all supply-related net writeoffs, the proper bad debt ratio for delivery service is 0.93 percent (id. at 29 & n.19). The Attorney General requests that the Department order the Company to recalculate its bad debt ratio to exclude all supply-related net write-offs, and to adjust its delivery-related bad debt expense downward to prevent over-recovery (id. at 30).

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[57] Fitchburg removed, under miscellaneous adjustments, the bad debt related to 2006 purchased electricity of $288,368 because it is not related to the base distribution function (Exhs. Unitil-RT-1, at 27; Unitil-RT-1, Sch. RT-7-12, Line 7).

b. Fitchburg

The Company agrees that the Attorney General's recommended bad debt ratio has been calculated in a manner consistent with the Department's current ratemaking treatment of supply-related bad debt (Fitchburg Brief at 53). Accordingly, the Company states that it accepts the Attorney General's proposed bad debt ratio of 0.93 percent (id.).

Fitchburg maintains that application of the 0.93 percent bad debt ratio to test year delivery retail billed revenue, adjusted for the base distribution revenue increase proposed in Exhibit Unitil-RT-1, Schedule RT-7-5, produces an uncollectible delivery revenue amount of $349,626 (id. at 53-54). The Company concludes that this represents an increase to test year bad debt expense of $102,330, of which $99,345 is assigned to base distribution, and the remaining $2,985 is assigned to internal transmission (id. at 54).

3. Analysis and Findings

The Department permits companies to include, for ratemaking purposes, a representative level of uncollectible revenues as an expense in cost of service. D.P.U. 96-50 (Phase I) at 70-71; D.P.U. 89-114/90-331/91-80 (Phase I) at 137-140. The Department has found that the use of the most recent three years of data available is appropriate in the calculation of bad debt. D.P.U. 96-50 (Phase I) at 71. With the corrections brought forward by the Attorney General and agreed to by the Company on brief, the method used by the Company for calculating the uncollectible adjustment ratio comports with Department precedent. As the calculations were made in compliance with Department directives, the Department finds that the mathematical result based on the calculation is reasonable.

Therefore, the Department approves the application of the bad debt ratio of 0.93 percent applied to test year retail billed revenue, adjusted for the base distribution revenue increase as shown on Schedule 1. This calculation produces an uncollectible delivery revenue amount of $338,548. Comparison of this amount to the test year delivery bad debt expense results in an increase to bad debt expense of $91,252, of which $88,590 is related to base distribution ($91,252 less $2,662 assigned to internal transmission). The method used by Fitchburg for calculating the uncollectible revenue adjustment is consistent with Department precedent and the pro forma increase shall be granted, as modified to reflect the revised bad debt ratio of 0.93 percent.

G. Shareholder Services

1. Introduction

During the test year, Fitchburg booked $142,471 in expenses related to USC's shareholder services and its dividend reinvestment plan (Exh. AG 1-76). Of that amount, $38,528 was allocated to the electric division of the Company (id.).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Department has consistently excluded shareholder expenses from cost of service (Attorney General Brief at 37, citing D.T.E. 03-40, at 176; D.P.U. 94-50, at 326-327; The Berkshire Gas Company, D.P.U. 92-210, at 52 (1993); Western Massachusetts Electric Company, D.P.U. 88-250 (1989)). The Attorney General maintains that the Company has failed to provide any reason for a departure from this

precedent, and therefore, proposes that the Department exclude the $38,528 in shareholder services expense from Fitchburg's cost of service (id.).

b. Fitchburg

On brief, the Company agreed to remove from cost of service the amount of $38,528 for shareholder services or dividend reinvestment programs allocated to the electric division (Fitchburg Brief at 57). The Company subsequently removed $38,528 from its proposed cost of service; of this amount, $2,668 was assigned to internal transmission and $35,860 was assigned to base distribution (Exh. Unitil-RT-1, Sch. RT-7-14 (Rev.)).

3. Analysis and Findings

The Department's policy has been to exclude shareholder-related expenses from cost of service. D.P.U. 94-50, at 326-327; D.P.U. 92-210, at 52; D.P.U. 88-250, at 47. The Department finds that Fitchburg has removed the appropriate level of expense from cost of service. Accordingly, no further adjustment to the Company's cost of service is required.

H. Administrative Transfer Credits

1. Introduction

As part of its total USC expenses, the Company has included an administrative transfer credit of $54,445 in its representative test year level of expenses (Exh. AG 2-45, Att. 1). The Company explained that at the beginning of the test year, there was an under-collection of $37,114, which would have been reflected as a credit in the balance-sheet account of $37,114 (Tr. 6, at 733). Further, at the end of 2006, the balance sheet reflected an over-collected balance of $17,331 (Exh. AG 9-11; Tr. 6, at 734). The sum of under-collection at the

beginning of the test year, $37,114, and the over-collection at the end of the test year of $17,331 totals $54,445.

2. Positions of the Parties

a. Attorney General

The Attorney General states that the Department should reject Fitchburg's inclusion of administrative transfer credit in O&M expense (Attorney General Brief at 36). The Attorney General maintains that because the administrative transfer credit represents a balance sheet entry incurred in previous years, the credit is not representative of the test year level of expenses (id.).

b. Fitchburg

The Company agrees with the Attorney General that the administrative transfer credit be removed from O&M (Fitchburg Brief at 57). However, Fitchburg claims that the actual amount to be removed is not the $54,445 proposed by the Attorney General, but rather $10,020 (id.). According to Fitchburg, the USC administrative transfer credit must be first reduced to 43.41 percent, in order to determine the Company's allocated portion of the credit of $23,635 (id., citing Exh. Unitil-RT-1, WP 7-6.1). The Company then reduced the $23,635 by $7,554, or 31.96 percent, for the capitalized portion of the credit (id., citing Exh. Unitil-RT-1, WP 7-6.1). Next, Fitchburg allocated the remaining $16,081 on the basis of 62.31 percent to its electric division, thus producing an allocation to electric division O&M expense of $10,020 (id., citing Exh. Unitil-RT-1, WP 7-6.1). Of this amount, $694 was assigned to internal transmission and $9,326 was assigned to base distribution (Exh. Unitil-1, Sch. RT-7-14 (Rev.)).

3. Analysis and Findings

The Department accepts Fitchburg's proposal to remove $9,326 from test year O&M expense related to administrative transfer credits. Accordingly, no further adjustment to the Company's cost of service is required.

I. Inflation Allowance

1. Introduction

The Department's intent in granting a company an inflation allowance is to recognize the effect of inflation on certain O&M expenses that are heterogeneous in nature and that are not large enough individually to warrant separate adjustment in the cost of service. See Boston Edison Company, D.P.U. 1720, at 29 (1984). In its initial filing, Fitchburg proposed an inflation allowance associated with distribution operations of $100,634, which was subsequently revised to $98,772 (Exh. Unitil-RT-1, Schs. RT-7-6, at 1; RT-7-6, at 1 (Rev.)).[58] In order to determine the level of test year residual O&M expenses, the Company reduced test year O&M expenses of $8,092,746 by: (1) $4,582,889 in test year expenses associated with cost items that have been adjusted separately; and (2) $913,430 in expenses that are not subject to general inflation (Exh. Unitil-RT-1, Sch. RT-7-6, at 1 (Rev.)). This produced a residual O&M expense of $2,596,428 (id.). The Company then applied the gross domestic product implicit price deflator ("GDPIPD") inflation factor of 4.12 percent, projected from the midpoint of the test year, July 1, 2006, to July 1, 2008 (id.). The calculation produces an inflation allowance of

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[58] In its revised filing, the Company eliminated USC administrative transfer credit of $10,020 and the shareholder services of $38,528 (see Exh. Unitil-RT-1, Sch. 7-14 (Rev.)).

$106,973, of which $98,772 was assigned to base distribution, and $8,200 was assigned to internal transmission (id.).

2. Positions of the Parties

a. Attorney General

The Attorney General proposes that the Company's residual O&M balance be reduced by $45,548, representing: (1) $10,020 in administrative transfer credits; and (2) $35,528 in shareholder services and dividend reinvestment program expenses that Fitchburg proposes to remove from its cost of service (Attorney General Reply Brief at Sch. 8; see Sections IV.G. and IV.H. above). According to the Attorney General, these adjustments reduce the residual O&M balance to $2,543,113, with a corresponding distribution-related inflation allowance of $96,758 (Attorney General Reply Brief at Sch. 8).

b. Fitchburg

Fitchburg maintains that it has undertaken significant cost-containment measures, and thus is eligible for an inflation allowance (Fitchburg Brief at 55-56). The Company concludes that its revised inflation allowance should be approved (id. at 56). On brief, Fitchburg incorporated the Attorney General's proposed adjustments to its residual O&M expense into the Company's revised accounting exhibits (see Exh. Unitil-RT-1, Sch. RT-7-6, at 1 (Rev.)).

3. Analysis and Findings

The inflation allowance recognizes that known inflationary pressures tend to affect a company's expenses in a manner that can be measured reasonably. D.T.E. 01-56, at 71; D.T.E. 98-51, at 100; D.T.E. 96-50 (Phase I) at 112; D.P.U. 95-40, at 64. The adjustment

recognizes the likely cost of providing the same level of service in the future as was provided in the test year. The Department permits utilities to increase their test year residual O&M expense by the projected GDPIPD from the midpoint of the test year to the midpoint of the rate year. D.P.U. 95-40, at 64; D.P.U. 92-250, at 97; D.P.U. 92-78, at 60. In order for the Department to allow a utility to recover an inflation adjustment, the utility must demonstrate it has implemented cost containment measures. D.T.E. 96-50 (Phase I) at 113.

The record demonstrates that Fitchburg has undertaken aggressive steps to contain its costs and mitigate the impact of expense increases and therefore meets the Department's criterion for an inflation allowance (Exh. Unitil-MHC-1, at 7-11). For example, Fitchburg has pursued several strategies to achieve operational efficiencies and cost savings, including a functional reorganization of the Company's operating utilities, management staffing reorganizations and reductions, and work practice changes achieved through collective bargaining and the use of new technology (id. at 7-9, 11). The Company has also extensively revised its employee health care programs in order to contain costs (id. at 9-11). As a result of these efforts, the Company's O&M expense has increased by only 1.6 percent per year on an annual basis since its last rate case in 2002 (Exh. Unitil-MHC-1, Sch. MHC-1). Accordingly, we determine that the Company has contained costs and as a result is allowed an inflation allowance. Therefore, the Department finds that an inflation allowance adjustment equal to the most recent forecast of GDPIPD for the appropriate period as proposed by the Company, applied to Fitchburg's approved level of residual O&M expenses, is proper in this case.

If an O&M expense has been adjusted or disallowed for ratemaking purposes, that expense is also removed in its entirety from the inflation allowance. D.T.E. 05-27, at 204; D.T.E. 02-24/25, at 184; Boston Gas Company, D.P.U. 88-67 (Phase I) at 141 (1988). The Department has accepted the Company's assented-to adjustments for administrative transfer credits and shareholder services/dividend reinvestment program expenses (see Sections IV.G. and IV.H above). Therefore, Fitchburg has properly removed the test year expense associated with these items from its residual O&M expense calculations.

Although Fitchburg intended to calculate the inflation allowance using the standard Department formula from the midpoint of the test year to the midpoint of the rate year, the Company's inflation calculation terminates on July 1, 2008; that is, only four months into the rate year. As shown on Table 1, the Department has corrected this computation, which results in an inflation factor of 4.69 percent, and the resulting inflation allowance assigned to base distribution operations is $112,438. Accordingly, the Department will include in cost of service an inflation allowance of $112,438.

4. Table 1

| | | |
|---|---|---|
| **Test Year Total, Excluding Purchase Power** | | $8,092,746 |
| **Less Normalizing Adjustments Items** | | |
| Payroll | $3,329,790 | |
| Medical and Dental Insurance | $446,379 | |
| Property and Liability Insurance | $218,960 | |
| Uncollectible Expense | $247,296 | |
| Water Heater Rental Program | $2,980 | |
| Membership Fees | $542 | |
| Low Income Arrearage Management Program Costs | $26 | |
| Bad Debt-Non Delivery | $288,368 | |
| USC Administrative-Transfer Credit | $10,020 | |
| Shareholder Services And Dividend Reinvestment Program | $38,528 | $4,582,889 |
| **LESS: ITEMS NOT SUBJECT TO INFLATION** | | |
| Pension | $10,159 | |
| Postemployment Benefits Other Than Pensions | $404,092 | |
| Amortizations-USC Charge | $184,233 | |
| Facility Leases-USC Charge | $218,947 | |
| Equipment Leases-Unitil Electric Division & USC Charge | $95,999 | $913,430 |
| **Residual O&M Expenses** | | $2,596,427 |
| **Projected Inflation Rate** | | 4.69% |
| **Inflation Allowance** | | $121,772 |
| Assigned To Internal Transmission (1) | | $9,334 |
| Assigned To Base Distribution | | $112,438 |

(1) Weighted average of internal transmission O&M and administrative/general allocation factors from Exh. Unitil RT-1, WP 3-1.1, 3-1.2, at 2

J. Software Amortization Expense

1. Introduction

During the test year, Fitchburg booked $51,075 in software amortization expense to its electric division (Exh. AG 7-21, Att. 1). In addition, the Company's electric division was allocated $184,233 in software amortization expense associated with USC (Exh. Unitil-RT-1, WP 7-6.1).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that Fitchburg's amortization expense must be reduced to remove amortization expense associated with both Company software and allocations of USC software that will be fully amortized by March 1, 2008, the anticipated date of the Department's Order (Attorney General Brief at 26). The Attorney General identifies $22,580 in Fitchburg software costs and $645,865 in USC software costs that will be fully amortized as of the date of the Department's Order (id. at 26-27, citing Exhs. AG 7-21; AG 9-6; RR-AG-39).[59] According to the Attorney General, the Department has found that a utility's pro forma cost of service

[59] The Attorney General identified the following Company software applications as being fully amortized by March 1, 2008, along with their respective test year amortization expenses: (1) $1,365 for the MVRS Site License; (2) $8,803 for Web-based Business Systems; (3) $6,931 for Daily Cash Reporting; and (4) $5,481 for GIS (Attorney General Brief at 26, citing Exh. AG 7-21). Similarly, the Attorney General identified the following USC software applications and respective system-wide amortization expenses: (1) $99,970 for the Customer Information System; (2) $502,241 for Web-based CIS Systems; (3) $491 for Web Development; (4) $41,143 for the Interactive Voice Response System; and (5) $2,020 for the Entrac System (id. at 27, citing Exh. AG 9-6; RR-AG-39).

should be reduced to reflect amortization expenses that terminate before the midpoint of the rate year in the particular case (id. at 26, citing D.P.U. 87-260, at 75; D.P.U. 86-280-A, at 99; Attorney General Reply Brief at 17). The Attorney General argues that the Company fails to demonstrate that these software applications will be replaced, and points out that software assets cannot be treated as homogenous items because of their heterogenous nature and varying service lives (Attorney General Reply Brief at 17). Therefore, the Attorney General urges the Department to reduce Fitchburg's cost of service accordingly. The Attorney General states that such an adjustment should be limited only to those software programs that will be fully amortized before the midpoint of the first twelve months after the issuance of the Department's Order in this proceeding, and include only costs allocated to the Company's electric division (id. at 18).

b. Fitchburg

The Company argues that the Attorney General misconstrues the reason underlying the test year concept and cost of service principles. According to Fitchburg, the software costs identified by the Attorney General are representative of the types of costs incurred on an ongoing basis, such as investments in information systems and technology improvements (Fitchburg Brief at 66, citing Exhs. AG 7-21; AG 9-6; RR-AG-39). The Company maintains that although individual software applications may be fully amortized by the beginning of what it considers to be the rate year, it will continue to incur additional costs for new software systems (id.). Fitchburg contends that, in order for companies to keep pace with technology improvements and developments, it is the typical pattern that as the amortization of previous

costs expire, new software systems will be acquired and amortized (id.). The Company points out that the cases relied on by the Attorney General are from the 1980s, and predate the advances in computer technology (Fitchburg Reply Brief at 14). The Company requests that the Department review its policy on software costs (id. at 15). Accordingly, Fitchburg concludes that the Department should not adjust test year amortization expense for these costs (Fitchburg Brief at 66).

Fitchburg adds that, even if the Department accepts the Attorney General's argument, the Attorney General's proposed adjustment is overstated. First, the Company contends that its GIS system and USC's IVR system will not be fully amortized until 2009 (id., citing Exhs. AG 7-21, Att. 1; AG 9-6, Att. 1; RR-AG-39). Second, Fitchburg argues that only a portion of Unitil's software costs is allocated to the Company's electric division (id. at 67). For example, the Company represents that of the $99,970 in CIS expenses, its electric division's allocated portion is only $31,146 (id. at 66-67). Similarly, the Company maintains that of the $502,241 in web-based CIS, only $123,927 is allocated to its electric division, and only $8,034 of the combined $43,654 for web development, the IVR system and the Etrac system is allocated to its electric division (id. at 67).

3. Analysis and Findings

The Department typically includes a test year level of expenses in cost of service, and will adjust this level only for known and measurable changes to the test year. D.P.U. 87-260, at 75. The Company's test year cost of service includes amortization expense relative to a number of software applications that will be fully amortized as of the date of this Order. These

include Fitchburg's MVRS Site License, Web-based Business Systems, and Daily Cash Reporting systems, as well as its allocated share of USC's Customer Information System, Web-based CIS Systems, Web Development, and Entrac System.[60] While the Department agrees with Fitchburg that it is important to keep abreast of technological developments, we note that the Company's test year intangible plant includes a number of applications that had been fully amortized before the test year (Exh. AG 7-21, Att. 1). These plant items remain in service, and there is no evidence that the Company will retire these systems in the near future. Therefore, the Department finds that the expiring amortizations associated with the Company's MVRS Site License, Web-based Business Systems, and Daily Cash Reporting systems, as well as its allocated share of USC's Customer Information System, Web-based CIS Systems, Web Development, and Entrac System, represent a known and measurable change to test year cost of service. Accordingly, the Department will reduce the Company's amortization expense to recognize their expiration.[61]

The test year amortization expense associated with Fitchburg's MVRS Site License, Web-based Business Systems, and Daily Cash Reporting was $17,099 (id.). Based on the allocation method used by USC to assign costs to Fitchburg's electric division, including the

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60 The Department concurs with the Company, as apparently does the Attorney General, that Fitchburg's GIS system and USC's IVR system will not be fully amortized until 2009 (Exhs. AG 7-21, Att. 1; AG 9-6, Att. 1; RR-AG-39). Therefore, the test year cost associated with these software applications will be included in cost of service.

61 If Fitchburg requires new software to implement a baseline arrearage management program and expansion of low-income assistance programs, the Department will consider the appropriate interim ratemaking treatment at that time.

apportionment of both direct and overhead charges, the test year amortization expense associated with the Customer Information System, Web-based CIS Systems, Web Development, and Entrac System charged to O&M expense was $159,218 (see Exh. Unitil-RT-1, WP 7-6.1). Accordingly, the Company's proposed amortization expense will be reduced by $176,317.

## V. CAPITAL STRUCTURE AND RATE OF RETURN

### A. Capital Structure, Cost of Long-Term Debt and Preferred Stock

#### 1. Introduction

Fitchburg proposes to use a capital structure consisting of 55.7 percent long-term debt, 1.5 percent preferred stock, and 42.8 percent common equity (Exh. Unitil-RT-1, Sch. RT-13). This pro forma capital structure includes a capital contribution of $10,000,000 made by Unitil to Fitchburg in May of 2007 (id.; Exh. Unitil-RT-1, at 38). The Company proposes a rate of 6.99 percent for its long-term debt, 6.90 percent for its preferred stock, and 10.75 percent for its common equity (Exhs. Unitil-RT-1, at 38; Unitil-RT-1, Sch. RT-13).

#### 2. Positions of the Parties

Fitchburg states that it calculated its weighted cost of long-term debt of 6.99 percent by dividing the total annual cost of the long-term debt, including both interest charges and the annual amortization amount of debt issuance costs, by the outstanding long-term balance (Fitchburg Brief at 67, citing Exh. Unitil-RT-1, at 39). The Company states that it used a similar method to calculate its weighted cost of preferred stock of 6.90 percent, except that the annual cost is stated as an annual dividend instead of an annual interest cost (id. at 67-68, citing

Exh. Unitil-RT-1, at 39). None of the other parties commented on the issues of capitalization, the cost of long-term debt, or the cost of preferred stock.

3. Analysis and Findings

A company's capital structure typically consists of long-term debt, preferred stock, and common equity. See D.T.E. 01-56, at 97; Pinehills Water Company, D.T.E. 01-42, at 17-18 (2001); D.T.E. 99-118, at 62; Kings Grant Water Company, D.P.U. 87-228, at 22 (1988). The ratio of each capital structure component to the total capital structure is used to weight the cost (or return) of each capital structure component to derive a weighted average cost of capital ("WACC"). The WACC is used to calculate the return on rate base for calculating the appropriate debt service and profits for the company to be included in its revenue requirements. D.T.E. 01-42, at 18; D.P.U. 86-149, at 5.

The Department will normally accept a utility's test year-end capital structure, allowing for known and measurable changes, unless the capital structure deviates substantially from sound utility practice. D.T.E. 03-40, at 319; High Wood Water Company, D.P.U. 1360, at 26-27 (1983); Blackstone Gas Company, D.P.U. 1135, at 4 (1982). In reviewing and applying utility company capital structures, the Department seeks to protect ratepayers from the effect of excessive rates of return. D.T.E. 01-50, at 25; D.P.U. 95-92, at 33; D.P.U. 86-93, at 25; D.P.U. 1135, at 4.

The $10 million capital adjustment resulting from Unitil's capital contribution to Fitchburg is a known and measurable change to test year capitalization. See D.T.E. 05-27, at 272; see also D.T.E. 03-40, at 323-324; Colonial Gas Company, D.P.U. 84-94, at 52-53

(1984); D.P.U. 90-121, at 156-157. In addition, Fitchburg calculated its cost of long-term debt and preferred stock consistent with Department precedent (see Exh. Unitil-RT-1, Sch. RT-13; see also D.T.E. 02-24/25, at 213; D.P.U. 90-121, at 159-161). Therefore, the Department finds that Fitchburg's effective cost of long-term debt is 6.99 percent and that the effective cost of preferred stock is 6.90 percent.

B. Rate of Return on Common Equity

1. Introduction

Fitchburg proposes a 10.75 percent rate of ROE (Exh. Unitil-SCH-1, at 45-46). In determining its proposed cost of equity, the Company relied on the following two discounted cash flow ("DCF") methods: (1) a constant traditional method using a 4.90 percent growth and a constant long-term Gross Domestic Product ("GDP") using 6.60 percent growth; and (2) a non-constant growth two-stage DCF analysis (Exh. Unitil-SCH-1, Sch. SCH-5). Although Fitchburg also presented what it identified as a "traditional constant growth" DCF analysis, the Company did not apply the results of this model because it judged that recent events and current market conditions in the electric utility industry appear to challenge the constant growth assumption of the traditional DCF model (Exh. Unitil-SCH-1, at 21).[62] In addition, the Company performed a risk premium analysis as a check of the reasonableness of the three DCF methods (id. at 41-44).

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[62] The traditional constant growth DCF model produced an ROE between 8.8 and 9.1 percent (Exh. Unitil-SCH-1, Sch. SCH-5).

Because Fitchburg is a wholly-owned subsidiary of Unitil, there are no market data for the Company's common stock, and consequently no means to directly assess real or hypothetical investor expectations of the Company's projected required return (see id. at 3). Therefore, the Company relied upon the market and financial data from three gas and 24 electric utilities ("comparison groups") to determine its costs of equity (id. at 3-4). The DCF models were applied to all gas and electric distribution companies for which complete and reliable data are available in the Value Line Investment Survey ("Value Line"), but eliminated those companies whose domestic utility revenues comprised less than 70 percent of total revenues (id.; Exh. Unitil-SCH-1, Sch. SCH-1).[63]

2. ROE Models

a. Discounted Cash Flow Analyses

i. Introduction

The DCF model is predicated on the concept that a stock's price represents the present value of all investor expected cash inflows from the stock. Fitchburg's DCF analyses are based upon the following formula:

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[63] The gas comparison group consists of: (1) NICOR; (2) Northwest Natural Gas; and (3) Piedmont Natural Gas. The electric comparison group consists of: (1) ALLETE; (2) Alliant Energy Corporation; (3) Ameren; (4) American Electric Power; (5) Central Vermont Public Service; (6) Cleco Corporation; (7) Consolidated Edison; (8) DTE Energy Corporation; (9) Empire District; (10) Energy East Corporation; (11) First Energy; (12) Hawaiian Electric; (13) MGE Energy, Inc.; (14) NiSource Inc.; (15) NSTAR; (16) Pinnacle West; (17) PNM Resources; (18) Progress Energy; (19) Puget Energy, Inc.; (20) Southern Corporation; (21) Teco Energy Inc.; (22) UIL Holdings Corporation; (23) Vectren Corporation; and (24) Xcel Energy, Inc (Exh. Unitil-SCH-1, Sch. SCH-1).

$$P_0 = D_1 / (1+k) + D_2 / (1+k)^2 + \ldots + D_\infty / (1+k)^\infty \qquad \text{equation (1)}$$

where $P_0$ is today's stock price; $D_1$, $D_2$, etc. are all expected future dividends; and k is the discount rate, or the investor's required ROE (Exh. Unitil-SCH-1, at 20).

ii. Constant Growth DCF

The constant growth DCF model assumes that dividends per share are expected to grow at a constant rate "g" over time. In this case, the Company used the long-term estimated GDP growth rate of 6 percent. Equation (1), therefore, can be solved for k and rearranged:

$$k = D_1 / P_0 + g \qquad \text{equation (2)}$$

where k is the investors required ROE, $D_1 / P_0$ is the expected dividend yield, and g is the long-term expected growth rate (id.). Using the constant growth DCF model, the Company estimated an ROE between 10.7 and 10.8 percent (Exh. Unitil-SCH-1, Sch. SCH-5).

iii. Non-Constant Growth DCF - Two-Stage

The two-stage, non-constant growth DCF approach is modeled by the following equation:

$$P_0 = D_0(1+g_1) / (1+k) + \ldots + D_0(1+g_2)^n / (1+k)^n + \ldots + D_0(1+g_T)^{(T+1)} / (k-g_T) \qquad \text{equation (3)}$$

where $g_1$, $g_2$, and $g_t$ are the growth rates for each period from year T (the end of the investor's holding period) to infinity (Exh. Unitil-SCH-1, at 22-23). According to Fitchburg, the first two growth rates are simply estimates for the fluctuating growth over "n" years (estimated to be five or ten years), and $g_t$ is a constant growth rate assumed to prevail after year T (id. at 23). Using the two-stage growth DCF model, the Company estimated an ROE between 10.4 and 10.5 percent (Exh. Unitil-SCH-1, Sch. SCH-5).

b. Risk Premium Analyses

Risk premium analyses are based on the assumption that equity securities are riskier than debt and that equity investors require a higher ROE (Exh. Unitil-SCH-1, at 12-14). Simple risk premium methods take currently observable market returns, such as government or corporate bond yields, and add an increment to account for the additional equity risk (Exh. Unitil-SCH-1, Sch. SCH-7).

In this case, the Company used a projected triple-B utility bond yield of 6.70 percent as the starting point of this analysis (id.).[64] To estimate its equity risk based on electric companies' returns, the Company first determined that the difference between the averages of Regulatory Focus' authorized electric returns and Moody's Investors Service ("Moody's") average public utility bond yield from 1980 to 2006 was 3.13 percent (id. at 1). Based on the inverse relation between interest rates and equity risk, the Company added an interest rate adjustment of 1.12 percent for a total electric equity risk premium of 4.25 percent (Exhs. Unitil-SCH-1, at 43; Unitil-SCH-1, Sch. SCH-7, at 1). Using risk premium analysis, Fitchburg calculated an ROE of 10.95 percent by adding the 6.7 percent projected bond yield to its 4.25 percent equity risk estimation (Exh. Unitil-SCH-1, Sch. SCH-7, at 1).

To estimate its equity risk based on local distribution company ("LDC") returns, the Company used the same techniques and found the difference between the averages of LDC returns and utility bond yields to be 3.01 percent, with an interest rate adjustment of

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64 The projected triple-B bond yield is equal to the projected 30-year Treasury bond rate of 5.4 percent from Standard & Poor's Trends & Projections chart dated June 21, 2007, plus 130 basis points (Exhs. Unitil-SCH-1, at 30; Unitil-SCH-1, Sch. SCH-7, at 1).

1.14 percent (id. at 3). Adding these two figures, the Company estimated its total electric equity risk premium at 4.15 percent (id.). Using risk premium analysis, Fitchburg calculated an ROE of 10.85 percent based on LDC returns by adding this same 6.7 percent to its 4.15 percent equity risk estimation (Exh. Unitil-SCH-1, Sch. SCH-7).

In addition to its own risk premium calculation, the Company included two risk premium studies by Morningstar[65] and Harris and Martson ("Harris-Martson") (Exh. Unitil-SCH-1, at 43-44). Using a geometric mean over the years 1926 to 2006, Morningstar calculated a 4.5 percent risk premium for common stocks relative to long-term corporate bonds (id. at 44). Fitchburg also cites a 1992 risk premium study by Harris-Marston that used analysts' growth estimates to conclude that the equity risk premium was 5.13 percent relative to yields on corporate debt (id. at 43-44). Fitchburg added the risk premium figures from the two published studies to the 6.7 percent projected bond yield, producing an 11.2 percent and 11.83 percent ROE, respectively (id. at 44).

3. Positions of the Parties

a. Attorney General

i. Introduction

The Attorney General argues that the Department should reject the Company's GDP and two-stage growth DCF analyses as well as its risk premium and capital asset pricing model ("CAPM") analyses (Attorney General Brief at 48, 52). The Attorney General further argues

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[65] Morningstar was formerly known as Ibbotson Associates (Exh. Unitil-SCH-1, at 36 n.3).

that the Department should reject the Company's requested ROEs and instead authorize a 9.27 percent return, as described below (id. at 45).

ii. Comparison Groups

The Attorney General argues that Fitchburg's electric comparison group includes firms with vertically integrated electric companies, including risky generation, energy trading, oil, and other unregulated businesses (id. at 38-39). Further, the Attorney General argues that the Company's gas comparison group includes gas distribution companies that have pipeline, energy trading, and oil and gas exploration businesses (id.). The Attorney General contends that the increased business risk of the comparison groups overstates the cost of equity for Fitchburg's distribution business (id. at 39).

The Attorney General argues that Unitil's common stock can be used to provide a check on the results of the Company's other DCF analyses (id. at 44). The Attorney General noted that Unitil's average stock price during 2007 was $26.725 per share, with a normalized dividend payout of $1.38 per share, resulting in a dividend yield of 5.16 percent (id. at 44-45, citing Exh. AG 1-3, Att. 1, at 30, Att. 4A, at 21, 30). The Attorney General proposed a growth rate of 4.0 percent, representing the midpoint of Fitchburg's long-term earnings growth estimates (id. at 45, citing Exh. AG 1-9, Att. 5, at 13, Att. 6, at 4, 13).[66] Thus, the Attorney General estimated a cost of common equity for the Company of 9.27 percent (id.).

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[66] The four percent growth estimate is based on 2006 and 2007 presentations by Robert G. Schoenberger at an annual meeting of shareholders in which Unitil's earnings growth of between three and five percent were acknowledged as a long-term goal (Attorney General Brief at 45, citing Exhs. AG 1-9, Att. 5, at 13; AG 1-9, Att. 6, at 4, 13).

iii. Constant Growth DCF

The Attorney General argues that the Company did not use historical measures of growth in its projections of long-term growth, and that the three- to five-year growth forecasts that Fitchburg did use are too high to be representative of long-run sustainable growth in utility stocks (id. at 41-42). The Attorney General states that the historical growth rates as represented by the five- and ten-year average annual growth rates in dividends, earnings, and book value per share are lower than the forecasted rates used by the Company in this case (id. at 42, citing Exh. AG 11-9). The Attorney General criticizes Fitchburg's constant growth DCF analysis, arguing that the investors' expectations of the growth in dividends over the next year and over the rest of the investors' holding period are not directly measurable (id. at 41, citing Exh. Unitil-SCH-1, at 20). Further, the Attorney General argues that the Company's failure to consider the lower historical growth rate proxies results in an inflated average growth rate estimate of 4.90 percent and therefore an inflated constant growth DCF model cost of equity estimate (id. at 42).

iv. Constant Growth DCF - GDP Growth

The Attorney General suggests that the Department reject Fitchburg's long-term GDP DCF model and the resulting ROE estimate (id. at 43). The Attorney General states that this approach assumes that the investors expect the Company will grow at a rate equal to the overall nominal growth rate of the economy as measured by the GDP (id. at 42). According to the Attorney General, in this case, Fitchburg assumes that in the long run one might expect the dividend of an average, or "normal," company to grow at a rate of five to eight percent a year

(id., citing Exh. Unitil-SCH-1, at 38-39). The Attorney General argues that distribution companies are not average or "normal" companies compared to other businesses that make up the domestic economy (id. at 43). Therefore, the Attorney General argues that the theory and the application of the use of GDP growth rate in the DCF model are inappropriate for the electric distribution companies (id.).

v. Non-Constant Growth DCF - Two-Stage

The Attorney General suggests that the Department reject the Company's two-stage growth DCF model and the resulting ROE estimate (id. at 44). The Attorney General argues, similar to her criticism of the constant DCF model, that Fitchburg has failed to support the use of a long-run growth rate of 6.60 percent and therefore this method is equally inappropriate for the electric distribution companies for the same reasons explained above (id.). In short, the Attorney General argues that the Department should reject Fitchburg's DCF analyses because the application of the DCF approaches are based on inconsistent and illogical choices of model elements that, in each case, bias the results upward causing the Company's cost of equity results to be grossly inflated (id. at 45). Instead, the Attorney General proposes a range from 9.1 and 9.27 percent based on the upper range of the traditional constant growth DCF model and its own DCF calculation using Unitil's market information such as its common stock, dividend payments, and a growth estimate of four percent (see id. at 44-45).

vi. Risk Premium Analyses

The Attorney General argues that Fitchburg's risk premium analysis is flawed and meaningless for determining the Company's ROE, as are the two comparative risk premium

analyses conducted by the Company (id. at 46, 51). In addition, the Attorney General argues that the Company did not provide any new evidence or arguments regarding this analysis (Attorney General Reply Brief at 48). Therefore, the Attorney General argues that the Department should reject Fitchburg's risk premium analyses (Attorney General Brief at 46, 48).

b. Fitchburg

i. Introduction

The Company asserts that its proposed ROE of 10.75 percent is consistent with precedent that recognizes that a utility is entitled to a return on common equity that is sufficient to preserve its financial integrity, that enables it to attract capital on favorable terms, and that permits the utility to realize earnings on par with investments of comparable risk (Fitchburg Brief at 68, citing Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679 (1923) ("Bluefield"); Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1942) ("Hope"); D.T.E. 99-118, at 78).

ii. Comparison Groups

Fitchburg argues that its DCF analyses were based on accurate comparison groups and appropriate factors (id. at 70-71). Specifically, the Company argues that it did not individually select comparison companies, but rather used the selection compiled by Value Line and eliminated utilities that did not derive at least 70 percent of revenues from domestic utility operations (id. at 70). Further the comparison groups include companies that have consistent data from Value Line, are currently paying dividends, and have no dividend cuts in the past two years, and that the companies that are not currently involved in merger activities (id. at 70-71).

iii. Constant Growth DCF Analysis

Fitchburg states it calculated the expected long-term growth by using an equally weighted, three-part average of (1) Value Line projections for the coming three to five years, (2) Zacks Investment Research ("Zacks") earnings per share growth projections for the coming three to five years, and (3) a sustainable growth ("b" times "r") estimate based on Value Lines' projected retention rates and earned rates of return for the next three to five years (id. at 74, citing Exh. Unitil-SCH-1, at 20). The Company argues that the traditional constant growth model may not provide reliable results when growth rates are highly uncertain or expected to fluctuate (id., citing Exh. Unitil-SCH-1, at 21). In addition, Fitchburg argues that recent events and fluctuating market conditions in the electric industry suggest that singular reliance on the traditional constant growth DCF model is inappropriate (id., citing Exh. Unitil-SCH-1, at 21). Further, the traditional constant growth DCF indicates an ROE range of 8.8 to 9.1 percent which is well below Fitchburg's risk premium check for reasonableness (id., citing Exh. Unitil-SCH-1, at 40). For the reasons mentioned above, the Company excluded the results of the traditional constant growth DCF model from the calculation of the Company's proposed DCF range (id., citing Exh. Unitil-SCH-1, at 40-41).

iv. Constant Growth DCF - GDP Growth

Fitchburg argues that in light of current market and utility industry conditions, traditional growth rate sources are not consistent with the DCF model's underlying assumptions and requirements, and, therefore, it is necessary to use a second version of the constant growth DCF model using only the long-term estimated GDP growth rate (id. at 74-75, citing

Exh. Unitil-SCH-1, at 36; see also Exh. Unitil-SCH-1, Sch. SCH-5). Specifically, the Company argues that dividend payment policies for many utilities have changed and utility growth rates have become much more volatile (Fitchburg Brief at 75, citing Exh. Unitil-SCH-1, at 37). Further, Fitchburg claims that recent dividend yields have been at historically low levels and for the past several years analysts' growth rate forecasts have been low and highly volatile (id.). Under these circumstances, the Company argues, the use of a long-term GDP growth rate which places more weight on more recent years should be an appropriate growth rate proxy when applying the constant growth DCF model (id. at 77).

v. Non-Constant Growth DCF - Two-Stage

Fitchburg argues that the Attorney General offers a number of technical criticisms of the Company's DCF analysis which lack evidentiary support or theoretical justification (id. at 79). The Company claims that the sole basis for the Attorney General rejection of the long-term GDP growth rate used in the constant and non-constant DCF model is her claim that electric distribution companies are not "normal" companies compared to other businesses in the economy (id. at 80). Contrary to the Attorney General's claim, Fitchburg argues that it has provided an extensive description of why the nominal GDP is a better proxy for an electric utility's long-term growth than near-term analyst estimates (id., citing Exh. Unitil-SCH-1, at 38-39). In addition, Fitchburg asserts that the Missouri Public Service Commission recently embraced the use of the GDP growth rate in estimating the cost of equity for an electric utility using both the constant growth rate and the multi-stage DCF models (id., citing Kansas City Power & Light Company, Case No. ER-2007-0291, at 14-20 (Mo. Pub. Serv. Comm'n.,

Dec. 6, 2007)). Further, the Company argues that the Attorney General conveniently employs one proxy from a shareholder presentation to establish a four percent long-term growth rate and then claims to use a DCF analysis to estimate a cost of equity for Unitil of 9.27 percent (id.). Therefore, Fitchburg asserts that the Attorney General's approach should be summarily rejected since it relies on one earnings' estimate, thus manipulating the DCF formula without expert support for the approach and methodology (id. at 80-81).

vi. Risk Premium Analyses

Fitchburg contends that, contrary to the assertions of the Attorney General, the Company conducted a reasonable and appropriate risk premium analysis as a check on its DCF methodologies (id. at 83). In addition, Fitchburg argues that its risk premium methodology has been reviewed favorably and considered by the Department and other state Commissions as a supplemental approach to other ROE models and, therefore, should be used in this case as a check on the reasonableness of Fitchburg's DCF analysis (id., citing D.T.E. 99-118, at 86-87; D.T.E. 02-24/25, at 228). Fitchburg concludes that its risk premium analysis, indicating an ROE range of 10.9 to 11.0 percent, supports its recommended ROE of 10.75 percent (id.).

4. Analysis and Findings

a. Comparison Groups

In our evaluation of the comparison groups used by Fitchburg in its DCF analyses, we recognize it is neither necessary nor possible to find a group that matches Fitchburg in every detail. See D.T.E. 99-118, at 80. Rather, we may rely on an analysis that employs valid criteria to determine which utilities will be in the comparison group, and that provides sufficient

financial and operating data to discern the investment risk of the subject company versus the comparison group. Id.; D.P.U. 87-59, at 68. Fitchburg's comparison groups include utilities that are involved in ventures beyond gas and electric distribution, which makes these companies more risky and, in turn, potentially more profitable (Exhs. Unitil-SCH-1, at 3-4; Unitil-SCH-1, Sch. SCH-5; AG 11-9, Att. 1). Other factors, such as the comparison groups' debt ratios and capital structures, provide an acceptable basis for evaluating the relative risks of the Company. On balance, the Department finds that Fitchburg is reasonably comparable to the comparison groups relied on in this proceeding, but also recognizes that the Company's resulting ROE estimates may be upwardly biased.

b. Constant Growth DCF Analysis

The Department has previously found that a three-month average stock price is not an accurate representation of the financial marketplace, as it is too short a period to represent the current market experience. D.T.E. 98-51, at 121. For these same reasons, the Department again rejects the Company's use of a three-month average stock price to determine the comparison groups' dividend yield.

Fitchburg argues that a combination of unusually low interest rates and volatile utility returns, as well as a heightened level of competition in the electric industry, makes the traditional constant growth DCF model unreliable. The Department is not persuaded by these arguments. For one thing, utilities' transition to competition has been underway for several years now and utility returns have shown a steady upward trend since the middle of 1990's (Exh. Unitil-SCH-1, at 31-33). On the other hand, utilities' lower market returns during the

years 2001-2003, as shown in the Dow Jones Utility Average chart, seem to coincide more with the cyclical peaks and valleys of the marketplace (id. at 31). In other words, the stock market in general suffered a steep bout of lower returns during those years only to recover its footing in the subsequent years leading to 2007, similar to the trend shown in the Dow Jones Utility Average chart (id.). Therefore, the market volatility, as shown in the Dow Jones Utility Average chart does not necessarily demonstrate Fitchburg's contention of a direct link between volatile utility returns and a more competitive environment in the utility sector (id.). Further, rejecting this model on the assumption that the market is experiencing an unusual but temporary bout of lower interest rates is tenuous at best. One could as easily argue that recent financial and current economic conditions point in the direction that lower interest rates may prevail for some time, thus making the traditional constant growth DCF model as relevant to this proceeding as the other DCF models proposed by the Company (see id. at 46; Exh. DPU-RR-6). In addition, a variety of quantitative factors, including growth in earnings per share, dividends per share, and book value per share, should be taken into consideration when determining an appropriate growth rate. D.P.U. 96-50 (Phase I) at 120; D.P.U. 93-60, at 251; D.P.U. 92-250, at 147.

c. Constant Growth GDP DCF

On its face, it seems reasonable to assume that utilities will grow at a rate no higher than the growth rate of the economy. However, as stated above, the Department has rejected the use of a three-month stock price to calculate the comparison group's projected dividend yield, which is then added to the GDP long-term rate to calculate the Company's ROE under this

model (Exh. Unitil-SCH-1, Sch. SCH-5). Accordingly, the Department does not accept the results of this DCF model as proposed by Fitchburg.

d. Non-Constant Growth DCF - Two-Stage Growth

This method suffers from the same limitations of using a three-month stock price to calculate the comparison group's projected dividend yield, which is used as the first-stage growth step on the two-stage model. Accordingly, the Department does not accept the results of the DCF model as proposed by Fitchburg.

e. Risk Premium Analyses

The Department has repeatedly found that a risk premium analysis overstates the amount of company-specific risk and, therefore, overstates the cost of equity. See e.g., D.T.E. 98-51, at 126; D.P.U. 90-121, at 171; D.P.U. 88-135/151, at 123-125; D.P.U. 88-67 (Phase I) at 182-184. The Department has acknowledged the value of risk premium analyses as a supplemental approach to other ROE models but has accorded it, at best, limited weight in our determination of the cost of equity. D.T.E. 99-118, at 86-87. The Moody's and Standard & Poor's ("S&P") bond yield indices that Fitchburg relied upon include vertically-integrated companies whose operations are not confined to distribution services and are unrepresentative of the Company's risk and its debt component (Exh. Unitil-SCH-1, Sch. SCH-7). Similarly, both the Morningstar and Harris-Marston studies rely on the S&P in their risk-premium calculations and therefore do not represent Fitchburg's risk (Exh. Unitil-SCH-1, at 43-44). Because these studies are presented for comparative purposes only and because the risk

premium analyses suffer from the same limitations previously noted by the Department, we will not rely on their results in determining Fitchburg's ROE.

5. Conclusion

The standard for determining the allowed rate of return on common equity is set forth in Bluefield and Hope. According to the Bluefield and Hope standards, the Department's allowed return on common equity should preserve the Company's financial integrity, should allow it to attract capital on reasonable terms, and should be comparable to returns on investments of similar risk. See Bluefield at 692-693; Hope at 603.

The Company has presented various financial methods such as the DCF and risk premium models in support of its calculation of an appropriate return on equity. These methods include the use of projected growth rates, current and projected interest rates, and financial statistics for Fitchburg and the comparison groups. However, the use of these empirical analyses in this context is not an exact science. A number of judgments are required in conducting a model-based ROE analysis. The Department looks to base its judgement on substantial evidence. Each level of judgment to be made contains the possibility of inherent bias and other limitations. D.T.E. 01-56, at 117; Western Massachusetts Electric Company, D.P.U. 18731, at 59 (1977).

The record in this proceeding shows that there is a wide range of results produced by the Company and the Attorney General. Because the risk premium model overstates Fitchburg's risk, the Department does not rely on the results of the Company's risk premium analyses. Recognizing the inherent limitations in comparing the Company to publicly traded companies,

the Department grants the DCF comparison group appropriate probative weight. We reject Fitchburg's market price DCF model as speculative. We have also taken into account the inflated growth rates used in Fitchburg's constant growth and two-stage growth DCF models and, while not rejecting these models per se, find that the results are inflated. Therefore, while the results of analytical models are useful, the Department must ultimately apply its own judgment to the evidence to determine an appropriate rate of return. We must apply to the record evidence and argument considerable judgment and agency expertise to determine the appropriate use of the empirical results. Our task is not a mechanical or model-driven exercise. D.T.E. 01-56, at 118; D.P.U. 18731, at 59; see also Boston Edison Company v. Department of Public Utilities, 375 Mass. 1, 15 (1978).

Based on a review of the evidence presented in this case, the arguments of the parties, and the considerations set forth above, the Department finds that an allowed rate of return on common equity of 10.25 percent is within a reasonable range of rates that will preserve Fitchburg's financial integrity, allow it to attract capital on reasonable terms, will be comparable to earnings of companies of similar risk, and, therefore is appropriate in this case. In making these findings, we have considered both qualitative and quantitative aspects of the Company's various methods for determining its proposed rate of return on equity, as well as the arguments of the parties in this proceeding. In the Department's determination of an appropriate ROE for Fitchburg, we have considered the reduction to the Company's financial risk brought about by the pension/PBOP reconciliation mechanism and bad debt reconciliation mechanism through the operation of the local distribution adjustment clause as well as the

failure of the Company to conduct a competitive bidding process for any of its outside services related to this rate proceeding.

## VI. RATE STRUCTURE

### A. Rate Structure Goals

Rate structure is the level and pattern of prices charged to customers for their use of utility service. The rate structure for each rate class is a function of the cost of serving that rate class, and the design of the rates such that the cost to serve that rate class is recovered. The Department has determined that utility rate structures must be efficient and simple, and ensure continuity of rates, fairness between rate classes, and corporate earnings stability. D.T.E. 02-24/25, at 252; D.T.E. 01-56, at 134; D.T.E. 01-50, at 28; D.P.U. 96-50 (Phase I) at 133. Efficiency means that the rate structure should allow a company to recover the cost of providing the service and should provide an accurate basis for consumers' decisions about how to best fulfill their needs. The lowest-cost method of fulfilling consumers' needs should also be the lowest-cost means for society as a whole. Thus, efficiency in rate structure means that it is cost-based, and recovers the cost to society of the consumption of resources to produce the utility service. D.T.E. 02-24/25, at 252; D.T.E. 01-56, at 135.

The Department has determined that a rate structure achieves the goal of simplicity if it is easily understood by consumers. Rate continuity means that changes to rate structure should be gradual to allow consumers to adjust their consumption patterns in response to a change in structure. Fairness means that no class of consumers should pay more than the costs of serving that class. Earnings stability means that the amount a company earns from its rates should not

vary significantly over a period of one or two years. D.T.E. 02-24/25, at 252-253; D.T.E. 01-56, at 135.

There are two steps in determining rate structure: cost allocation and rate design. The cost allocation step assigns a portion of the company's total costs to each rate class in an embedded allocated cost of service study ("COSS"). The COSS represents the cost of serving each class at equalized rates of return given the company's level of total costs. D.T.E. 02-24/25, at 253; D.T.E. 01-56, at 135; D.T.E. 01-50, at 29; D.P.U. 96-50 (Phase I) at 133.

There are four steps to develop a COSS. The first step is to functionalize costs. In this step, costs are defined as being associated with the production, transmission, or distribution function of providing service. The second step is to classify expenses in each functional category according to the factors underlying their causation. Thus, the expenses are classified as demand-, energy-, or customer-related. The third step is to identify an allocator that is most appropriate for costs in each classification within each function. The fourth step is to allocate all of a company's costs to each rate class based upon the cost groupings and allocators chosen, and to sum these allocations in order to determine the total costs of serving each rate class. D.T.E. 02-24/25, at 253; D.T.E. 01-56, at 136; D.T.E. 98-51, at 131-132; D.P.U. 96-50 (Phase I) at 133-134.

The results of the COSS are compared to the revenues collected in the test year. If these amounts are close, then the revenue increase or decrease may be allocated among the rate classes so as to equalize the rates of the return and ensure that each rate class pays the cost of

serving it. If, however, the differences between the allocated costs and the test-year revenues are great, then, for reasons of continuity, the revenue increase or decrease may be allocated so as to reduce the difference in rates of return, but not to equalize them in a single step. D.T.E. 02-24/25, at 253-254; D.T.E. 01-56, at 135; D.T.E. 01-50, at 29.

As the previous discussion indicates, the Department does not determine rates based solely on costs, but also explicitly considers the effect of its rate structure decisions on customers' bills. For instance, the pace at which fully cost-based rates are implemented depends in part on the effect of the changes on customers. In moving toward our goal of efficiency, the Department has also ordered the establishment of special rate classes for certain low-income customers, and considers the effect of such rates and rate changes on low-income customers. D.T.E. 02-24/25, at 254; D.T.E. 01-56, at 136; D.T.E. 01-50, at 29-30.

In order to reach fair decisions that encourage efficient utility and consumer actions, the Department's rate structure goals must balance the often divergent interests of various customer classes and prevent any class from subsidizing another unless a clear record exists to support — or statute requires (see, e.g., G.L. c. 164, § 1F(4)(I)) — such subsidies. The Department reaffirms its rate structure goals that result in rates that are fair and cost-based and enable customers to adjust to changes. D.T.E. 02-24/25, at 254; D.T.E. 01-56, at 136-137; D.T.E. 01-50, at 30.

The second step in determining the rate structure is rate design. The level of the revenues to be generated by a given rate structure is governed by the cost allocated to each rate class in the cost allocation process. The pattern of prices in the rate structure, which produces

the given level of revenues, is a function of the rate design. The rate design for a given rate class is constrained by the requirement that it should produce sufficient revenues to cover the cost of serving the given rate class and, to the extent possible, meet the Department's rate structure goals discussed above. D.T.E. 02-24/25, at 254-255; D.T.E. 01-56, at 136; D.T.E. 01-50, at 30.

B. Cost Allocation

1. Introduction

The Company performed a COSS as a basis to assign or allocate costs to customer rate classes (Exhs. Unitil-JLH-1, at 2-3; Unitil-JLH-1, Sch. JLH-2). Fitchburg states that the cost to serve utility customers consists generally of operating expenses and rate of return (Exh. Unitil-JLH-1, at 2). Fitchburg adds that although the overall costs for a utility may be readily established based on a historical test period, the costs to serve customers of various rate classes are less apparent because costs can vary significantly between customer classes depending upon the nature of their demands upon the facilities required to serve them (id.). The Company states that, through the application of a cost model developed for Fitchburg by Management Applications Consulting ("MAC"), it was possible to treat, in detail, each element of rate base, revenue, and operating expenses and allocate them to customer rate classes (id.).[67]

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[67] The Company's proposed COSS allocated rate base, operating expenses and revenue to rate classes consisting of residential, small general service (GD-1), regular general service, large general service (GD-3), and outdoor lighting (SD) (Exhs. Unitil-JLH-1, Schs. JLH-2, JLH-4). The residential rate class includes RD-1 and RD-2, and the regular general service includes GD-2, GD-4, and GD-5 (Exhs. Unitil-JLH-1, Schs. JLH-2, JLH-4).

2. Costs Excluded from COSS

The Company states that its proposed COSS excludes all supply costs and identifies each item contributing to the Company's revenue requirements for distribution service only (id.). In addition, the COSS excludes all costs recovered through internal transmission charges and the various Department-approved reconciling mechanisms except the Base Rate Reduction ("BRR") and the Residential Assistance Adjustment Factor ("RAAF") (id. at 3-4).[68]

The Company states that the BRR was instituted to shift recovery without having a base rate case of certain basic service-related costs from distribution rates to basic service rates (id. at 4). The Company adds that the BRR reduces distribution revenues and increases default service revenues, noting that the BRR was established in Costs to Be Included in Default Service, D.T.E. 03-88 A-F (2005) ("D.T.E. 03-88 Settlement") that produced a test year credit of $69,634 (id.; Unitil-RT-1, Sch. RT-1, at 3).[69] The Company states that, because it is

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[68] Fitchburg states that there is no difference in the methodology of its proposed COSS from the COSS approved in D.T.E. 02-24/25 (Exh. Unitil-JLH-1, at 5). The Company, however, noting the Department's concern in D.T.E. 02-24/25, where the COSS input included the costs to serve both distribution service and internal transmission service, excluded internal transmission costs from the proposed COSS input data thereby tying the COSS directly to distribution system costs to serve (id.). See D.T.E. 02-24/25, at 235.

[69] In Provision of Default Service, D.T.E. 02-40-B at 15 (2003), the Department recognized that basic service may act as a barrier to the development of competition so long as retail competitive suppliers must recover all of their costs through the prices they charge customers, while distribution companies are able to recover some of their basic service related costs through their distribution rates. The Department found that it was appropriate to include the costs that distribution companies incur in providing basic service in their basic service prices. Consequently, in the D.T.E. 03-88 Settlement, the Department directed each electric distribution company to identify basic

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proposing to maintain the BRR, the starting point of the distribution service revenue requirements must be increased by this amount so that the BRR's crediting mechanism leaves the utility with its allowed revenue requirement (Exh. Unitil-JLH-1, at 4).

The amount of basic service related costs credited to distribution rates through the BRR and collected through the basic service rates through the Default Service Cost Adder was determined in a settlement that was approved by the Department in the D.T.E. 03-88 Settlement. The D.T.E. 03-88 Settlement provides that the amount of transferred basic service related costs will be fixed until a distribution company's next general distribution rate case (D.T.E. 03-88 Settlement at ¶ 2.4). Since this proceeding constitutes the next distribution rate case after approval of the D.T.E. 03-88 Settlement, we direct Fitchburg in its compliance filing to remove the basic service related costs identified in Record Request AG-13, which is $130,842, from its distribution cost of service and instead collect this expense at the $130,842 level through basic service rates.[70]

Once the basic service related costs have been removed from the distribution cost of service, there is no need to credit these costs to base rates through the BRR. Therefore, the Department directs the Company to terminate the BRR tariff, M.D.T.E. No. 122, effective March 1, 2008. In addition, the Company shall revise its Default Service tariff,

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[69](…continued)
service related costs to be removed from distribution rates and, instead, collected through basic service rates.

[70] Record Request AG-13 updates the basic service related costs of $69,633 that were approved in the D.T.E. 03-88 Settlement. The updated amount is $130,842.

M.D.T.E. No. 157 to allow recovery of the basic service related costs identified in Record Request AG-13 through the basic service rates effective March 1, 2008.

Regarding the RAAF, the Company noted that the rates currently in effect were designed before the RAAF mechanism was instituted by the Department (Exh. Unitil-JLH-1, at 4). Fitchburg stated that at the time of the RAAF implementation, the discount to low-income residential customers was determined to be $366,962 and was recovered from all rate classes through distribution rates (id. at 4-5).[71] The Company added that during the test year, the RAAF collected an additional amount of $65,444, which is included as part of the Company's distribution revenues (id. at 5, 34).[72] The Company stated that because the shortfall in distribution revenues caused by the low-income discount is no longer proposed to be included

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[71] The Company noted that when the RAAF was instituted in D.T.E. 01-106, the low-income discount, in the amount of $366,962, referred to as "BR, baseline revenue," was determined to be the difference between the base rate revenues that would have been collected from low-income customers for the twelve-month period ending June 30, 2005, had no low-income discount existed and the actual base revenues collected from low-income customers for the same twelve-month period (Exh. DPU-FGE 2-25). The Company added that electric and gas companies were allowed to collect incremental lost revenue above the baseline revenue through a RAAF (id.).

[72] The additional amount of $65,444 collected through the RAAF during 2006 was calculated by taking the difference between the total lost revenue of $432,406 minus the baseline revenue of $366,962, taking into account the normalization of prior period adjustments and incremental costs (Exhs. Unitil-JLH-1, at 5 n.1; DPU-FGE 2-26, Att. 1, at 2; DPU-FGE 2-27).

in the design of base rates, the distribution revenues were adjusted to include the pro forma RAAF revenues collected in the test year (id. at 5).[73]

3. Changes in the COSS

Fitchburg stated that although its COSS proposed to use the same allocation methods employed in its last rate case, the results of the COSS changed because there were some new costs included in the current revenue requirements that were not included previously (id. at 13). The Company stated that these costs include new investments in an AMI system and the associated investments in substation and communication equipment, which were allocated to the metering function and allocated to classes based on the actual investment on the meters now serving the various rate classes (id.). The allocator developed for these new investments is further discussed below.

In addition, the Company stated that it made two minor changes in its proposed COSS compared to the COSS employed in its last rate case (id. at 13-14). The first change relates to the treatment of special contracts and the second relates to the allocation of line transformer costs and rental revenues (id. at 13-15).

In the case of special contract customers, the Company stated that it inadvertently included an inconsistency between the treatment of revenue and cost for these customers in D.P.U. 02-24/25 (id. at 13-14). More specifically, Fitchburg stated that when it developed its allocators in the last rate case, it assigned the cost to serve the special contract customers with

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[73] Fitchburg's proposal relating to the RAAF is further addressed in Section VI.E.2.c. below.

the cost to serve the other GD-3 customers but assigned the special contract revenues to all rate classes (id. at 14). Thus, while GD-3 was assigned all the costs to serve all the special contract customers, it only received a small portion of the special contract customers' revenues as an offset to their costs (id.). As a result, the remaining non-special contract customers in GD-3 were assigned a higher revenue requirement than was appropriate (id.).[74] The Company stated that it corrected this ratemaking inconsistency in its filing by including the special contract customer along with the remaining GD-3 customers to determine the class' total revenue requirement and then credited the special contract revenue to the class when establishing the revenue target to be collected from the remaining GD-3 customers (id.; Exh. Unitil-JLH-1, Sch. JLH-2, at 8; Tr. 4, at 509).

Regarding the allocation for line transformers, the Company noted that in the COSS in its last rate case, line transformers were assigned to the GD-3 rate class (Exh. Unitil-JLH-1, at 14). The Company, however, stated that a requirement of service under this rate schedule is that customers must provide for their own transformer and, therefore, Fitchburg corrected the line transformer allocation factor by excluding the allocation of line transformer costs to the GD-3 rate class (id. at 15). Fitchburg added that consistent with this adjustment, the revenues for the rental of line transformers are now allocated on the same basis as the line transformers such that the customer classes responsible for the line transformer costs receive the full benefit

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[74] The Company noted that this flaw in its D.T.E. 02-24/25 COSS had no impact on the final class revenue requirement approved in that case because the GD-3 rate class was assigned a much higher revenue target in order to subsidize the rate classes whose rate increases were capped to prevent large bill impacts (Exh. Unitil-JLH-1, at 14).

of the line transformer rental revenues (id.; Exh. Unitil-JLH-1, Sch. JLH-2, at 8). No party commented on this proposed change in the line transformer allocation.

4. Changes in Values of Allocation Factors

Although there were no changes in the method used by Fitchburg to calculate its various capacity allocation factors, there were significant percentage increases in the values of those factors for the residential and small commercial and industrial ("C&I") customers compared to the allocation factors approved in the Company's last rate case (RR-DPU-21; Tr. 5, at 626-628).[75] Fitchburg explained that these changes are due to the relatively slow growth in the residential sector, virtually no growth in the regular general service (GD-2) class, and a large negative growth in the large general service (GD-3) class with the loss of large industrial and commercial loads (Tr. 5, at 628-230). The Company added that, as a result, the capacity allocators, which represent most of the Company's distribution plant, show a significant swing toward the residential class and away from the GD-2 and especially the GD-3 rate class (id. at 629).[76]

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[75] Fitchburg stated that the large majority of the allocators employed in its COSS are driven by a number of factors including coincident peak demands, non-coincident peak demands, sum of customer individual maximum demands, average annual customer demands, and customer count (RR-DPU-21).

[76] All the capacity-related distribution allocation factors for the residential rate classes (RD-1, RD-2) increased from Fitchburg's last rate case, D.T.E. 02-24/25, compared to the results shown on the Company's proposed COSS in this case (RR-DPU-21). For example, for the allocator DEMPROD (capacity production-related), the allocation factor increased from 0.299770 to 0.375487, or 25 percent; for the allocator DSUBTSUB (demand sub-transmission, substation), the allocation factor increased from 0.350382 to 0.4067633, or 16 percent; and for the allocator DEMSECTR

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In the case of the residential customers, the Company noted that its number did not substantially change and as a result the meter allocator for Account No. 370 (meters) slightly changed from 0.452899 in the Company's last rate case to 0.454945 as shown in the Company's proposed COSS (Exh. Unitil-JLH-1, Sch. JLH-2, at 32; Tr. 5, at 629-630).[77]

5. Advanced Metering Infrastructure Allocator

In its filed COSS, the Company proposed to allocate the AMI plant investments and the associated costs based on what it termed as "CUST370A" allocator (Exh. Unitil-JLH-1, Sch. JLH-2, at 2-3). These costs consist of: (1) AMI plant Account No. 370 (meters) in the amount of $4,034,162; (2) AMI plant Account No. 362 (station equipment) in the amount of $1,048,625; and (3) AMI plant Account No. 397 (communication equipment) in the amount of

[76](…continued)
(demand transformer, secondary), the allocation factor increased from 0.444517 to 0.707521, or 59 percent (id.; Tr. 5, at 626-628). The corresponding percentage changes for the small general service rate class (GD-1) are: -6 percent, 11 percent, and 39 percent, respectively, while the corresponding percentage changes for the large general service rate class (GD-3) are: -12 percent, -13 percent, and -100 percent, respectively (RR-DPU-21; Tr. 5, at 626-628).

[77] The total number of residential customers' bills (RD-1, RD-2) in 2001 was 277,373 compared to 290,439 in 2006 or a 4.71 percent increase (Exh. Unitil-JLH-1, Sch. JLH-6, at 1; RR-DPU-26, Att. 1). The corresponding 2001 and 2006 numbers for the small general service (GD-1) rate class are 16,936 and 21,651 or a 27.84 percent increase; those for the regular general service (GD-2, G-4, and G-5) are 19,140 and 19,274 or a 0.70 percent increase; and those for the large general service (GD-3) are 433 and 374 or a 13.63 percent decrease (Exh. Unitil-JLH-1, Sch. JLH-5, at 1; RR-DPU-26, Att. 1).

$117,062 (id. at 2-4). The Company stated that this CUST370A allocator is a new allocator used in this docket (Exh. AG 5-3, Att. 1, at 3).[78]

Although the amount of $4,034,162 was booked under plant Account No. 370 (meters), the Company did not use its meter allocator (CUST370) but instead developed and proposed an allocator (CUST370A) specific to the AMI investment (Exh. Unitil-JLH-1, Sch. JLH-2, at 3).[79] The Company stated that the AMI investment represents a significant expenditure such that instead of using the generalized CUST370 meter allocator, it developed a direct allocator by identifying the AMI investment by type of meter and the class that the meter serves (Tr. 5, at 612-613).[80] The Company developed the allocation factor by summing up the total cost for each rate class of a sample[81] of meters, calculating the ratios, and applying those ratios on the total costs of AMI meter investment (Exh. Unitil-JLH-1, WP (Sch. JLH-2) at 41-50; RR-DPU-20; Tr. 5, at 624-625).

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78 The Company provided a schedule that lists all allocators used in its proposed COSS, indicating for each allocator whether it was used in the Company's last rate case, and explaining the basis for any changes in the allocators used (Exh. AG 5-3, Att. 1).

79 The total amount of $4,034,162 consists of the cost of meters ($3,398,762) and cost of meter installation ($635,400) (Exh. Unitil-RT-1, WP 7-10, at 1; RR-DPU-23).

80 The Company's proposed COSS, for example, shows that the meter allocator (CUST370) allocates 45.49 percent of meter costs to the residential (RD-1, RD-2) rate classes (Exh. Unitil-JLH-1, Sch. JLH-2, at 32). For comparison, the AMI allocator (CUST370A) allocates 82.14 percent of the AMI investment to the residential customers (id.).

81 Fitchburg characterized as a "sample" the initial amount used as the basis for developing its AMI allocator because at the time the study was performed the Company only had the data that accounted for $3,348,127 of the final total cost of $4,034,162 (Exhs. Unitil-JLH-1, Sch. JLH-2, at 3; Unitil-JLH-1, WP (Sch. JLH-2) at 41-50; Tr. 5, at 613-615, 617).

In the case of the station equipment under Account No. 362 in the amount of $1,048,625, the Company used the same AMI allocator (CUST370A) for allocating this cost to the different rate classes (Exh. Unitil-JLH-1, Sch. JLH-2, at 2). Fitchburg explained that, because those station equipment were installed to implement the automated meter infrastructure, it directly assigned their costs on the basis of the AMI allocator (Tr. 5, at 649-650). The Company added that it did not apply the DSUBTSUB allocator used for other station equipment because that allocator is a generalized allocator that was developed based on load research data in the absence of class-specific station equipment cost information (id. at 650-651). Fitchburg added that on the same basis, it used the AMI allocator (CUST370A) to allocate the $117,062 AMI-related communication equipment, instead of the LABOR allocator used for other communication equipment, because those AMI-related communication equipment were installed to implement communication with the AMI meters at individual customer premises (id. 649-651; Exh. Unitil-JLH-1, Sch. JLH-2, at 2, 4). No party commented on the Company's proposed AMI allocator.

6. Adjustment for Losses and Loads of Large Customers

The Company stated that it used metered demand data collected during the test year from its load research program as a basis for developing its capacity allocators in its COSS (Exh. AG 12-23; Tr. 4, at 490, 497-499).[82] Although the Company has not prepared any

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[82] The Company stated that the purpose of a utility's load research is to understand the load characteristics on a time-varying basis for different customer classes (Tr. 4, at 487-488). Fitchburg added that since this information is not available from a company's billing statistics, load research would entail the recording of demand meters (continued…)

formal load research report, it claimed that its load research program, that used samples from the residential and general service rates classes, provided the needed coincident peak, non-coincident peak, and average customers' maximum demand as basis for developing its capacity allocators (Exh. DPU-FGE 2-34; Tr. 4, at 488-491).[83]

Fitchburg stated that it adjusted peak demands for losses and for the loads of large GD-3 customers (Exhs. Unitil-JLH-1, WP (Sch. JLH-2) at 17-37; DPU-FGE 2-37; RR-AG-24; TR. 4, at 492). In the case of the loss adjustments, the Company stated that both demand and energy losses, which are primarily due to line and transformer losses, represent the difference between the loads from the point of receipt by the Company to the customers' meters (Exh. Unitil-JLH-1, WP (Sch. JLH-2) at 17-37; RR-AG-24; Tr. 4, at 492, 501). In making the adjustments for losses, the Company used system losses identified in its 1989 study, developed loss factors, and adjusted those loss factors to reflect the loads that existed on the Company's

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[82](…continued)
that record loads typically in short interval of time of five to 15 minutes or greater based on a small sample of customers (id. at 487-489). Fitchburg also added that its AMI is unable to provide such load research data that requires the recording of load data in very small increments of time (RR-DPU-12; Tr. 4, at 496-497).

[83] Fitchburg stated that the number of customers in its load research study consists of 150 RD-1 customers, 50 GD-1 customers, 150 GD-2 customers, two G-4 customers, and 34 GD-3 customers (Tr. 4, at 494). Fitchburg, however, added that not all customers had meters that measure demand and accordingly, the Company developed estimated load data (id. at 498).

system in 2006 (Exhs. Unitil-JLH-1, WP (Sch. JLH-2) at 37; DPU-FGE 2-35; DPU-FGE 2-36; DPU-FGE 2-37; Tr. 4, at 505).[84]

In the case of the GD-3 rate class, Fitchburg made pro forma adjustments to the test year billing units for a number of large customers including special contract customers (Exhs. Unitil-JLH-1, WP (Sch. JLH-2) 16-26; AG 2-14, AG 2-15; DPU-FGE 2-16; DPU-FGE 2-32; DPU-FGE 2-33; Tr. 4, at 516). After these adjustments for losses and billing demand of the GD-3 rate class, Fitchburg used those adjusted load data as the basis for developing capacity-related allocators (Exhs. Unitil-JLH-1, WP (Sch. JLH-2) at 26; DPU-FGE 2-36; Tr. 4, at 493).

7. Positions of the Parties

a. Attorney General

The Attorney General claims that as part of the allocation process, Fitchburg included the special contract customers' data in the GD-3 rate class for cost allocation purposes and allocated all the special contract revenue to the GD-3 class (Attorney General Brief at 52-53, citing Exh. Unitil-JLH-1, at 13-14). The Attorney General claims that this method is a departure from what Fitchburg used in its prior rate case where, according to the Company, all

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[84] Fitchburg stated that it has not prepared any formal load research study report but prepared certain workpapers as a substitute for a formal load research report (Exhs. DPU-FGE 2-34; Unitil-JLH-1, WP (Sch. JLH-2) at 17-35). Fitchburg also stated that it has not performed any other loss study since its 1989 loss study (Exh. DPU-FGE 2-38; Tr. 4, at 502-503). In calculating the transformer core losses, for example, the 1989 loss study used a loss factor from Westinghouse transformer book, a copy of which the Company could not locate and provide (RR-DPU-16; Tr. 4, at 573-574).

the special contract costs were allocated to the GD-3 class while the special contract revenues were allocated across all classes (id. at 53, citing Exh. Unitil-JLH-1, at 13-14).

In addition, the Attorney General states that aside from the pro forma adjustments to Fitchburg's test year costs and revenues, the Company proposed to adjust customer usage data to reflect the proposed revenue adjustments for the loss of several large customers (id. at 52, citing Tr. 4, at 493, 508-517). The Attorney General recommends that if the Department rejects the majority of the large customer adjustments, the Department should explicitly require Fitchburg to recalculate all related adjustments that the Company has made in developing allocation factors used in the embedded and marginal cost studies and the billing determinants and revenue levels used in designing the proposed rates (id. at 53, citing D.T.E. 99-118, at 18). The Attorney General adds that to facilitate an expeditious review of the Company's compliance filing, Fitchburg should provide sufficient documentation that all the required adjustments have been made (id.).

b. Fitchburg

Fitchburg states that although the Attorney General objects to a minor change in the Company's proposed COSS, to correct a prior error relating to the treatment of revenues and costs for special contract customers, she did not offer any explanation or basis for such objection (Fitchburg Brief at 89). Fitchburg states that the Attorney General ignores the Company's explanation, that its 2002 allocated cost of service study had erroneously included the special contract customers with the other GD-3 customers and, as a result, the GD-3 customers were assigned a higher revenue than was appropriate (id.). The Company claims that

in this case, Fitchburg correctly included the special contract revenues along with the remaining GD-3 customers to determine the class' total revenue requirements and then credited the special contract revenues to the class when establishing the revenue target to be collected from the remaining customers (id.).

8. Analysis and Findings

The Department has evaluated the Company's proposed COSS and finds that it is consistent with Department precedent for cost allocation. See D.T.E. 02-24/25, at 233; D.T.E. 01-56, at 138; D.P.U. 96-50 (Phase I) at 136. Regarding the issue raised by the Attorney General on the proposed allocation of the special contract revenues, the record shows that Fitchburg corrected an inadvertent error in its COSS in its last rate case by crediting the special contract revenues to the GD-3 class when establishing the revenue target to be collected from the remaining customers of that class. The Department finds that the method used by the Company to make such a correction is consistent with Department precedent for cost allocation. See D.T.E. 03-40, at 365-366; Western Massachusetts Electric Light Company, D.P.U. 91-290, at 8-10 (1992). Accordingly, the Department approves the proposed change.

Regarding the Company's proposed change in the method for allocating the costs and rental revenues associated with line transformers, the Department finds that this method is consistent with Department precedent for cost allocation. See D.T.E. 03-40, at 365-366; D.P.U. 91-290, at 8-10. Accordingly, the Department approves the proposed change.

The Department has rejected above in Section III.A., Fitchburg's proposed revenue adjustments for three out of the four large customers in the GD-3 rate class. Consistent with

the Attorney General's recommendation, the Department directs Fitchburg in its compliance filing to this Order to recalculate all related adjustments that the Company has made in developing allocation factors used in the embedded and marginal cost studies and the billing determinants and revenue levels used in designing the proposed rates. In addition, the Company shall provide sufficient documentation that all the required adjustments have been made, including the pro forma adjustments to the large customer class load data used for developing the demand allocators.

Although we approve the Company's COSS in this case, subject to the changes directed herein, the Department expresses its concerns on the load and loss data that Fitchburg used for its COSS that could render the results of the study less precise and less reliable. Although Fitchburg provided load data from what it characterized as its load research program, the Company did not prepare a report on such a program and was unable to provide the Department verifiable documentation for determining the accuracy of the load data used as a basis for calculating the COSS demand allocators. Although the Company claimed to have provided workpapers to support the load data used as a basis for developing such proposed demand allocators, those workpapers only showed class demand data and pro forma adjustments to support its proposed revenue adjustments for four large customers and adjustments for line losses. The Company was unable to provide any load research report or any documentation to demonstrate the validity of those load data provided.

In addition, in adjusting those load data for losses, Fitchburg used the results of its 1989 loss study. The record shows that Fitchburg has not performed any loss study since that

1989 study. Since the load data were adjusted for losses based on estimates that were calculated almost twenty years ago, the resulting adjusted load data may not be sufficiently reliable and precise compared to those load data that would have been based on more recent studies and estimates. Accordingly, the Department directs the Company, as part of its supporting documentation for its COSS in its next base rate filing, to submit to the Department a well-documented load research study and loss study updating its 1989 loss study.

C. Separation of Distribution and Internal Transmission

Fitchburg owns distribution plant as well as transmission plant. The cost to run its transmission system is recovered through rates approved by FERC (Exh. Unitil-RT-1, at 7). As a result of the restructuring of the electric industry, Fitchburg was required to unbundle its transmission and distribution rates. G.L. c. 164, § 1A(b)(1). Fitchburg's transmission investments are categorized by FERC into two components: pool transmission facilities ("PTF") and non-pool transmission facilities ("Non-PTF"). PTF facilities provide regional transmission service over "highway" transmission facilities under section II of the ISO-NE Open Access Transmission Tariff (Exh. Unitil-RT-1, at 7). The remainder of Fitchburg's transmission investment are Non-PTF and provide local transmission service under schedule 21 of the ISO-NE Open Access Transmission Tariff (id.). Fitchburg recovers its internal transmission costs on a fully-reconciling basis from all customers (id.).

On June 29, 2007, Fitchburg filed with FERC its Non-PTF transmission charge based on calendar year 2006 expenses (id. at 8). Internal transmission expenses are determined based

on a FERC-approved formula rate (id. at 7). Under the formula, revenue requirements are updated annually based on per-book amounts from the preceding calendar year (id.).

In order to determine its distribution revenue requirement, the Company first determined the cost of the distribution and internal transmission bundled together (id. at 8). These amounts were then separately assigned and allocated to base distribution and internal transmission functions (id.). The assignment of cost of service and rate base items to internal transmission relied upon FERC-approved formula rates, consistent with the Company's most recent FERC filing (id.).

The allocators proposed by the Company in its functional COSS are consistent with Department precedent and the costs assigned to internal transmission are consistent with the costs allowed under the FERC-approved formula rate in schedule 21 of the ISO-NE Open Access Tariff. Therefore, we approve the method to separate distribution costs from internal transmission costs proposed by Fitchburg for the purpose of establishing base rates in this proceeding.

D. Marginal Cost Study

1. Introduction

The use of a marginal cost of service ("MCS") study in rate-making supplies consumers with price signals that accurately represent the cost associated with consumption decisions. D.T.E. 03-40, at 372. Rates, based on the MCS study, will thus allow consumers to make informed decisions regarding their use of utility service, promoting efficient allocation of societal resources. Id.; D.T.E. 02-24/25, at 252.

The Company filed an MCS study that estimates the cost to provide an additional unit of service for each rate class (Exh. Unitil-JLH-1, Sch. JLH-3). These estimates are used as guidance in setting rates to the extent allowed by considerations of rate continuity and interclass equity. D.T.E. 02-24/25, at 252. The Company asserts that in preparing the MCS study, it complied with the mandates of the Department in D.T.E. 02-24/25 (Fitchburg Brief at 91).[85] Specifically, the Company contends it used a sufficiently large time series data set, used multivariate regression analysis, tested non-linear models, and used intercept terms in the model specifications (id., citing D.T.E. 02-24/25, at 243). Fitchburg also asserts that it followed Department directives in D.T.E. 05-27, in that the MCS study includes the calculation of estimated: (1) marginal distribution capacity costs; and (2) marginal distribution O&M costs, omitting the marginal customer cost, marginal energy cost and marginal production cost (id. at 91-92).

The Company relied on regression and engineering techniques to estimate the cost of adding distribution plant facilities and the additional costs for O&M necessary to serve an increment of customer load (Exh. Unitil-JLH-1, at 17). The Company computed the marginal costs to serve most of the rate classes based on costs for the first year that the rates will be effective ("rate year") (id.). The MCS study excludes the lighting class, because Fitchburg believes that the high cost and minimal benefit of computing the marginal lighting costs was not worth the expense (id.). The costs for primary and secondary lines were carefully segregated

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[85] We note that no other party commented on the Company's MCS study.

by the Company because many of its large customers take service at the primary voltage level and neither use nor benefit from the existence of secondary lines (id. at 20).

The Company's engineering staff conducted a line-by-line review of annual plant investment from 1993 to 2006 to identify investment specific to load growth. The average ratio of load growth specific investment to total investment was used to estimate the load growth specific investment for the period 1970 to 1992, creating a 37-year data set. Using the Handy-Whitman Index, investment was restated in 2006 dollars (id. at 21-22). Regression analysis was then performed, using this data set, to estimate the investment per kilowatt of planned peak demand. The derivative of the estimate coefficients was then taken to capture the impact that additional customers have on investment (id. at 24-25).

For the marginal distribution O&M expense, the Company did not develop an econometric model that provided statistically valid regression results. As a proxy, the average of the preceding five years average cost per kilowatt of coincident peak demand was used (id. at 27-28; Tr. 4, at 559). Fitchburg states that average costs are frequently used to estimate marginal O&M expenses (Exh. Unitil-JLH-1, at 28).

To develop the marginal capacity costs, plant investments were grossed up by Fitchburg to include general plant and were annualized by applying a fixed charge rate, developed to convert one-time plant investments into annualized revenue requirements. Annual operating expenses were added to this amount, including an allowance for administrative and general expenses. An adjustment reflecting annual revenue requirements to finance working capital was added. The indicated unit costs were then increased to reflect line losses based on the

Company's Line Loss Study. These costs were then escalated from test year to rate year levels (id.). Lastly, these per kilowatt peak demand charges were multiplied by the coincident peak demand and divided by total sales to achieve a marginal cost per unit (Exh. Unitil-JLH-1, Sch. JLH-3-6).

2. Analysis and Findings

Our review of the MCS study proposed by Fitchburg indicates that the MCS study incorporates sufficient detail to allow full understanding of the methods used to determine the marginal cost estimates. In its MCS study, the Company has included the determination of two cost components: (1) marginal distribution capacity cost; and (2) marginal distribution O&M cost. The Department reviewed and evaluated the methods proposed by Fitchburg to determine each of these costs.

Fitchburg developed a marginal distribution capacity cost based on an econometric analysis of plant investment (Exh. Unitil JLH-1, Sch. JLH 3-1, at 1-2). While the Company has sufficiently documented its method of estimation, the Department finds that Fitchburg used less than satisfactory techniques to develop the model specification. In particular, the Company inappropriately used a "step-wise" process to build a model by successively adding or deleting variables (Tr. 4, at 550). In using a step-wise process, when building down (that is, starting with all conceivable variables and removing one at a time), a statistical test called a restricted-F test should be performed to validate the step. See Jeffrey M. Wooldridge, Introductory Econometrics: A Modern Approach at 141 (2000). When building up, or failing to perform the restricted-F test after dropping each variable, there is the risk of under-specifying the model

(omitting relevant variables), resulting in the estimated coefficients of the remaining variables being biased. Id. at 87. The record indicates that the restricted-F test was used only once (see Tr. 4, at 551). Therefore it is likely that the coefficient estimates are biased.

The R-squared[86] of the regressions were 0.908 and 0.962 and the t-statistics[87] were all greater than 2.00, indicating that the models fit the data well and that estimates of the two explanatory variables used to derive the marginal cost estimate are statistically significant (Exh. Unitil-JLH-1, Sch. JLH 3-1, at 1-2). We also note that the Company detected a serial correlation problem in the regression equation by the Durbin-Watson statistic test (id.).[88] The Company corrected for serial-correlation using the Cochrane-Orcutt method (Exh. Unitil-JLH-1, Sch. JLH 3-1).[89] The Department finds that the Company's use of the

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86 The coefficient of determination R-squared is a measure of the fraction of the variance of the dependent or endogenous variable explained by the independent or exogenous variables. David R. Anderson, Dennis J. Sweeney, and Thomas A. Williams, Essentials of Statistics for Business and Economics at 480-483 (4th Edition 2006).

87 The t-statistic is the ratio of the estimated coefficient value to its standard error. The t-statistic is used to test whether the coefficient of a variable equals zero. If the t-statistic exceeds two in magnitude, it is at least 95 percent likely that the coefficient is not zero. David R. Anderson, Dennis J. Sweeney, and Thomas A. Williams, Essentials of Statistics for Business and Economics at 552 (4th Edition 2006).

88 A Durbin-Watson statistic test is a statistical testing procedure used to test for first-order autocorrelation in the error term. David R. Anderson, Dennis J. Sweeney, and Thomas A. Williams, Essentials of Statistics for Business and Economics at 604 (4th Edition 2006).

89 The Cochrane-Orcutt iterative least squares procedure is a standard econometric technique used to address first order serial autocorrelation. The average correlation between residuals of consecutive periods is estimated and incorporated in the regression equation by transforming the dependent and independent variables of the equation. The coefficients of the independent variables are reestimated in an iterative fashion until the

(continued…)

derivative of the estimated coefficient, described in Exhibits Unitil-JLH-1, at 24-25, and DPU-FGE 3-25, double counts the indirect effect of coincident peak demand on investment. The regression analysis used the ordinary least squares method, in which the effects of each independent variable on other independent variables have been netted out (Tr. 4, at 555; see also Jeffrey M. Wooldridge, Introductory Econometrics: A Modern Approach at 76 (2000)). In its compliance filing, the Company is directed to use the marginal cost basis provided in response to Record Request DPU-20, Attachment 1, at 3, in the development of rate design.

Due to its negligible impact on rate design, the Department accepts Fitchburg's use of the five-year average of O&M cost per coincident peak demand as a proxy for an estimate based on econometric methods. In future rate cases, however, Fitchburg will be expected to identify a model, using proper econometric techniques, that provides a statistically reliable estimate of the marginal O&M expense.[90] Further, the Company used a bi-variate model which, though not optimal, is technically a multi-variate model as directed in D.T.E. 02-24/25. In future rate cases, the Department directs Fitchburg to employ the most robust model available.

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[89](…continued)
serial correlation in the residuals are removed. Jeffrey M. Wooldridge, Introductory Econometrics: A Modern Approach at 389-390 (2000)

[90] This directive was given in D.T.E. 05-27, at 333. The Department notes that certain models were evaluated and discarded if one or more of the independent variables was statistically insignificant. The coefficient of the variable of interest can be used as a reliable estimate if it is statistically significant, and the model has an acceptable adjusted $R^2$ statistic and is free of serial correlation and heteroskedasticity.

E. Rate Design

1. Interclass Revenue Requirement Allocation

a. Fitchburg's Proposal

For each rate class, Fitchburg compared the test year base distribution revenue with the class' base distribution revenue requirement at equalized rates of return based on the results of the Company's COSS (Exhs. Unitil-JLH-1, at 33; Unitil-JLH-1, Sch. JLH-4, at 1). The Company noted that the resulting increases or decreases in revenues varied considerably from one rate class to another (Exhs. Unitil-JLH-1, at 33; Unitil-JLH-1, Sch. JLH-4, at 1). To avoid large customer bill impacts, the Company proposed to cap the revenue increase for a rate class at 125 percent of the overall revenue increase requested by the Company (Exhs. Unitil-JLH-1, at 33; Unitil-JLH-1, Sch. JLH-4, at 1).

The Company noted that the imposition of the cap limits the revenue requirement increase and therefore requires subsidies, which the Company proposed to recover from the remaining rate classes with revenues that were not at the cap (Exhs. Unitil-JLH-1, at 33; Unitil-JLH-1, Sch. JLH-4, at 1). The Company stated that it determined each class revenue target by allocating the subsidies to the remaining rate classes with revenues not at the cap based on revenue requirements before the cap, which is the same method adopted by the Department in the Company's last rate case (Exhs. Unitil-JLH-1, at 33; Unitil-JLH-1, Sch. JLH-4, at 1).

b. Position of the Parties

i. Attorney General

The Attorney General recommends that the Department mitigate the bill impacts on small customers (Attorney General Brief at 53). The Attorney General claims that the proposed increase in rates is significant and represents a shift in the revenue requirement allocation among customer classes (id., citing and comparing Exh. Unitil-JLH-1, Sch. JLH-2; RR-DPU-21, Att. 1; and Exh. AG 12-52, Att. 1). The Attorney General notes that there was a significant change in the allocation factors that reduces the allocation of the class revenue requirement to the medium (GD-2) and large (GD-3) general service and the outdoor lighting (SD) rate classes and increases the allocation to the small rate classes (RD-1, RD-2, and GD-1) (id., citing RR-DPU-21). The Attorney General expresses concern on this shift claiming that there is no evidence to indicate that this result arises from the actions or changes in the behavior of small customers (id. at 54).

The Attorney General contends that this shift appears to be related to a change in the GD-2, GD-3, and SD rate classes (id.). More specifically, comparing the number of customers and kWh sales between the allocated COSS in D.T.E. 02-24/25 and the COSS filed in this case, the Attorney General notes that there is growth in the residential and small commercial classes that is offset solely by decreases in the GD-3 rate class (id., citing and comparing Exh. AG 12-52, Att. 1, at 29, lines 1, 3; and Exh. Unitil-JLH-1, Sch. JLH-2).

The Attorney General states that Fitchburg's proposal, to cap the overall increase to a class revenue requirement at 125 percent of the total Company average increase, is not

sufficient to mitigate these adverse bill impacts and the shift in the cost burden to small customers, adding that the Company used a subjective cap in designing the customer charges (id., citing Exhs. Unitil-JLH-1, at 33, 36; Unitil-JLH-1, Sch. JLH-4, at 1; Tr. 5, at 656-657). The Attorney General notes that based on the Company's proposed allocated COSS at equalized rates of return for the proposed approximately $3 million total base distribution rate increase, the residential rate classes were allocated more than $3 million, or an increase of 39 percent, compared to the total Company increase that is in excess of 18 percent (id. at 54-55, citing Exh. Unitil-JLH-1, Sch. JLH-4, at 1).[91]

The Attorney General states that even with the proposed cap on the class revenue requirement at 125 percent of the total Company average increase, the bill impacts on small customers are excessive noting that more than 20 percent of those customers will have increases between 40 percent and 61 percent or between $3.00 to $4.60 per month (id. at 55, citing Exh. DPU-FGE 4-12, Att. 1, at 1). In the case of the small general service class (GD-1), the Attorney General states that although the total monthly dollar increases are comparable with those of the residential rate classes, the number of customers with 30 percent or more increases

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[91] Based on the results of the Company's proposed COSS, the revenue requirements at equalized rates of return and the corresponding percentage changes from the test year levels are: $3,109,944 or 38.63 percent for residential rate classes (RD-1 and RD-2); $175,933 or 44.68 percent for small general service rate class (GD-1); -$199,071 or -4.89 percent for regular (medium) general service rate classes (GD-2, GD-4, GD-5); -$425,406 or -13.80 percent for large general service rate class (GD-3); and $376,520 or 83.22 percent for outdoor lighting rate class (SD) (Exh. Unitil-JLH-1, Sch. 4, at 1, Col. C). The proposed total Company distribution revenue requirement increase is $3,037,921 or an 18.92 percent increase (id.).

in their monthly bills account for over 47 percent because of the higher number of low-use customers in the GD-1 rate class (id.).

ii. Fitchburg

The Company argues that the Attorney General's reference to the 125 percent rate cap as being subjective and her emphasis on the percentage increases, are misplaced because in dollar terms the actual increases are relatively small on a per customer, per month basis, as well as on the total bill's basis (Fitchburg Brief at 97-98, citing Exh. Unitil-JLH-1, Sch. JLH-6). Fitchburg further asserts that the increases that the Attorney General referred to are not for the RD-2 rate class but for the RD-1 rate class, who have a greater ability to pay and do not warrant the same level of protections needed by low-income customers served under the RD-2 rate (id. at 98). The Company adds that the proposed increases for low-income customers are significantly less than the increases for the RD-1 rate class (id. citing Exh. JLH-1, Sch. JLH-6, at 1-2).

Fitchburg claims that using the 125 percent cap, which it asserts the Department has endorsed in the past, ensures that the larger users will continue to subsidize smaller users at least for 20 more years, assuming a reasonable level of cost escalation and approximately five years between rate cases (id.). The Company urges the Department not to reduce the cap, as suggested by the Attorney General, because it would be contrary to Department goals of cost-based class revenue targets and would perpetuate the subsidies between rate classes (id.).

c. Analysis and Findings

The Attorney General noted that the results of the Company's COSS, at equalized rates of return on rate base among all rate classes, yield relatively large percentage increases in the revenue requirements for the residential and small general service rate classes. As noted in Section VI.B.4. above, there were changes in the relative number of customers and their loads compared to the Company's last rate case that resulted in increases in the values of the demand-related allocators for the residential and small general service rate class. In addition, while Fitchburg's proposed meter allocator (CUST370) allocated 45.49 percent of the regular meter costs to the residential rate classes, the Company's AMI allocator (CUST370A) allocated 82.14 percent of the costs of the AMI investments to the residential rate classes based on a direct meter allocator specifically developed for this investment.

The Department's long-standing policy regarding the allocation of class revenue requirements is that a company's total distribution costs should be allocated on the basis of equalized rates of return. See D.T.E. 02-24/25, at 256; D.T.E. 01-56, at 139; D.P.U. 92-210, at 214; D.P.U. 92-250, at 194. This allocation satisfies the Department's rate structure goal of fairness. However, we must balance our goal of fairness with our goal of rate continuity. To do this, we have reviewed the changes in total revenue requirements by rate class and the annual and seasonal bill impacts by consumption level within the rate classes.

The Department has previously approved adjustments to class revenue requirements similar to what Fitchburg has proposed, finding that such adjustments strike an appropriate balance between the Department's goals of rate fairness and continuity. See D.T.E. 02-24/25,

at 256; D.T.E. 01-56, at 139; D.T.E. 98-51, at 136-138; D.P.U. 91-106/138, at 129-130. Similarly, in this case, the Company has proposed an approach to rate design that recognizes the need to continue to move towards a fair allocation of costs, but that does so without dramatically changing the costs of any one rate class. Therefore, we find that the Company's proposed approach to rate design provides an appropriate balance between our goals of continuity and fairness and is consistent with Department precedent. Accordingly, we direct Fitchburg to cap the revenue requirement increase for all rate classes at 125 percent of the total Company average increase approved by the Department. The Company is directed to collect the remaining revenue requirements from the rate classes not at the cap based on a revenue allocator. The Department directs the Company, in its next rate case filing, to allocate any revenue deficiency such that equal rates of return are provided by all rate classes, unless continuity concerns require similar caps.

2. Rate-by-Rate-Analysis

a. Description

To determine the customer and delivery charges for each rate class, the Company stated that it identified the revenue target and the marginal cost to provide distribution service and then calculated the theoretical rate by setting the variable charges in the rate equal to the marginal cost and then computing the remaining charges, including the customer charges, residually (Exhs. Unitil-JLH-1, at 36; Unitil-JLH-1, Sch. 5, at 5-8; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); Tr. 4, at 469-4792). Fitchburg added that when the calculated rates resulted in unacceptably large impacts, it capped the individual rate components, except the customer

charge, at an increase of 125 percent of the average increase for a given rate class (Exhs. Unitil-JLH-1, at 36; Unitil-JLH-1, Sch. 5, at 5-8; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); Tr. 4, at 469-4792).[92]

In designing the charges for rate RD-1, the Company initially set the volumetric charge equal to marginal costs and adjusted the customer charge to achieve the target revenue (Exhs. Unitil-JLH-1, Sch. JLH-5, at 5; DPU-FGE 2-24, Att. 2, at 9 (Rev.); Tr. 4, at 469-4792).[93] This method, however, resulted in a customer charge of $18.93 per month, compared to the existing customer charge of $3.02 per month (Exhs. Unitil-JLH-1, Sch. JLH-5, at 5; DPU-FGE 2-24, Att. 2, at 9 (Rev.); Tr. 4, at 477). Accordingly, Fitchburg proposed to cap the customer charge increase to 100 percent of the current charge, or increased the customer charge from $3.02 per month to $6.04 per month (Exhs. Unitil-JLH-1, Sch. 5, at 5; DPU-FGE 2-24, Att. 2, at 9 (Rev.); Tr. 4, at 477).

The Company stated that when determining this proposed customer charge, it considered (i) the customer-related costs that Fitchburg incurred to provide service,[94] (ii) the customer

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92 Fitchburg stated that in the case of rate GD-3, it instead set the rate cap at 1.25 times the average percentage increase for the Company as a whole (Exhs. Unitil-JLH-1, at 36 n.3; Unitil-JLH-1, Sch. 5, at 7; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.)). Fitchburg explained that in the case of the GD-3 rate class, the class' average increase is minimal so that computing the cap on its marginal cost percentage increase would have resulted in little movement toward marginal cost to serve (Exh. Unitil-JLH-1, at 36 n.3).

93 The references to energy charges here, unless the context implies otherwise, means the volumetric charges for the base distribution rates.

94 Compared to the existing customer charge of $3.02 per month for RD-1, the unit customer-related cost for RD-1 (and RD-2) based on the Company's COSS is

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charges of other utilities in the Commonwealth which show that Fitchburg residential customer charge was among the lowest,[95] (iii) the need to design rates that are as close as possible to marginal cost, and (iv) the amount that customers could bear, taking into account rate continuity constraints (Tr. 4, at 475-477; Tr. 5, at 656-657). In the case of RD-2, Fitchburg stated that its proposed RD-2 charges are equal to the proposed RD-1 charges discounted at 38 percent on the customer charge and 59 percent discount on the volumetric charge (Exh. Unitil-JLH-1, at 36).

The Company noted that in its last rate case, the subsidy necessary to provide the low-income discount to rate RD-2 was collected in the form of an increase in the base rates from other rate classes (id. at 34). Fitchburg stated that, consistent with the Department's Order in D.T.E. 05-27, it is proposing the recovery of the entire low-income subsidy through the RAAF (id. at 34; Exh. Unitil-JLH-1, Sch. JLH-4, at 1).[96]

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[94](…continued)
$16.30 per month (Exh. DPU-FGE 2-24 (Rev.)).

[95] The monthly customer charges for the residential customers (R-1), all in effect as of July 1, 2007, are: $3.02 for Fitchburg; $3.73 for Commonwealth Electric Company; $6.43 for Boston Edison Company; $6.87 for Cambridge Electric Light Company; $8.53 for Western Massachusetts Electric Company; and $6.10 for Massachusetts Electric Company (Exh. AG 12-14, Att. 1, at 1). The corresponding monthly customer charges for the low-income rate (R-2) are: $1.87; $2.21; $3.91; $4.51; $5.54; and $3.96, respectively (id. at 2).

[96] The Company stated that when the RAAF was instituted, the baseline revenue for the low-income subsidy of Fitchburg was set at $366,592 (Exh. Unitil-JLH-1, at 34, 37). Fitchburg stated that during the 2006 test year it collected through the RAAF an additional amount of $65,444 (id.). Fitchburg stated that it added the sum of these two amounts to the present residential revenues prior to setting caps on each class revenue requirement (id. at 34, 37; Exh. Unitil-JLH-4, at 1).

b. Position of the Parties

i. Attorney General

The Attorney General states that she is not opposed to cost-based rates and has recently supported rate design approaches to address any disincentives that utilities may have in promoting energy and demand management (Attorney General Brief at 55, citing Investigation by the Department of Public Utilities on its own Motion into Rate Structures that will Promote Efficient Deployment of Demand Resources, D.P.U. 07-[5]0; Attorney General's Reply Comments at 10). Nonetheless, the Attorney General notes that small customers often have limited resources with few opportunities to reduce consumption to the extent necessary to make any impact on their bills (Attorney General Brief at 55). The Attorney General states that a large increase in the customer charge has the most adverse effect on customers with lower than average use because a higher portion of their monthly bills is in the customer charge (id.). The Attorney General recommends that, as a first step, the proposed 100 percent increase in the residential customer charge should at least be reduced to 50 percent and that the proposed 35 percent increase in the customer charge for Rate GD-1 should also be mitigated (id.). Noting the Department's long-standing concern about rate continuity and adverse bill impacts to customers, the Attorney General urges the Department that in designing rates, it should take into consideration the circumstances that small residential and business customers face (id. at 54-55, citing D.P.U. 92-250, at 210; D.T.E. 98-51, at 131-132).

Regarding DOER's proposal, described below, that the entire increase allocated to each of the small customer rate classes (RD-1, RD-2, GD-1) be recovered through increases in the

variable charge, the Attorney General claims that this rate redesign is contrary to Fitchburg's existing and proposed structure of rates (Attorney General Reply Brief at 27). The Attorney General contends that the DOER proposal is not supported and represents a departure from the Department's cost causation principles (id. at 28, citing D.T.E. 03-40, at 365; D.T.E. 01-56, at 134; D.T.E. 01-50, at 28; D.T.E. 96-50 (Phase I) at 133).

The Attorney General does not dispute that such a rate design approach could reduce energy consumption and act as a "powerful policy tool," but contends that DOER did not present sufficient evidence in support of its claim, and that parties have not had a sufficient opportunity to challenge DOER's proposal or present alternatives (id.). The Attorney General also claims that acceptance of DOER's proposal would contravene the Department's efforts in the generic decoupling investigation in D.P.U. 07-50 (id. at 28-29, citing D.P.U. 07-50, Comments by NSTAR Electric Company at 8; Comments by Western Massachusetts Electric Company at 7; Comments by National Grid, Appendix 1, at 7, n; D.P.U. 07-50, Tr. 1, at 217 (testimony of Mr. Collin regarding fixed cost recovery).

The Attorney General states that she agrees with DOER that rate design should encourage customers to use energy as efficiently as possible, and supports DOER's efforts to implement optional dynamic pricing pilot programs (id. at 29, citing NSTAR Electric Company, D.T.E./D.P.U. 06-107, Settlement Agreement filed July 24, 2007). The Attorney General states that optional dynamic pricing pilot offerings could be designed with varying degrees of energy price-based incentives and provide for optional metering and control levels (id.). The Attorney General urges the Department to support the implementation of such optional pilot

programs to provide data for the design of the most effective tariff that promotes energy efficiency and provides customers the opportunity to decide how to better control their energy use (id.).

ii. Division of Energy Resources

DOER recommends that the Department reject the Company's proposed rate design for rate classes RD-1, RD-2, and GD-1 and adopt, at a minimum, a rate design that does not increase the customer charge (DOER Brief at 4, citing RR-DOER-2, Att. 1). DOER asserts that Fitchburg has proposed to increase the customer charge by 100 percent for residential customers and by 35 percent for small C&I customers (id. at 1-2). DOER states that, although Fitchburg also proposed to increase the volumetric component of the distribution rates, these increases represent only a small portion of the total increase, accounting for approximately 19 percent in the case of rate RD-1 (id. at 2). DOER states that as a result, the customer charge, which is fixed and does not vary with the level of consumption, represents a larger portion of a customer's bill (id.).

DOER notes that, although the Company's rationale for increasing the customer charge is to better reflect cost causation and achieve economic efficiency, Fitchburg is also concerned with the bill impacts on customers with lower usage and therefore the Company placed a cap on the increase in the customer charge (id., citing Tr. 4, at 477). DOER, however, contends that the Company's proposed rate design reinforces existing inclination on the part of utilities to motivate customers to increase electricity consumption because the marginal costs for distribution service, as a basis for designing rates, are below average costs (id., citing Tr. 4, at 480).

DOER presents two alternative rate design approaches. The first alternative is to keep the customer charge at the current levels and recover the entire rate class increase through the volumetric charge (id. at 3). DOER claims that keeping the customer charge at current levels results in bill increases that are similar across all customer use levels (id.). The second alternative rate design approach is to set the customer charge equal to zero and recover the class' entire revenue requirement through the volumetric charge (id. at 3-4). DOER states that this rate design approach shields the smallest customers from any rate increase placing more of the increase on the larger use customers (id.). DOER claims that either rate design approach provides more incentives to customers to reduce their consumption and bills compared to Fitchburg's proposed rate design (id. at 4).

DOER, however, states that there are revenue risks associated with implementing a fully variable rate and would only recommend such a change in the presence of a revenue reconciliation mechanism being considered by the Department in D.P.U. 07-50 (id.). Nonetheless, DOER states that it is imperative to design distribution rates that provide the maximum incentive to customers to reduce consumption, and urges the Department to consider fully variable rate designs as a tool to promote greater use of demand-side resources and efficient use of energy (id.).

iii. Low-Income Intervenors

The Low-Income Intervenors recommend that the Department direct the Company to allocate the increase in distribution revenue requirement allowed in this docket among rate classes on an across-the-board basis in order to ameliorate the rate impact on residential

customers (Low-Income Intervenors Brief at 2; Low-Income Intervenors Reply Brief at 1-2). The Low-Income Intervenors state that Fitchburg's proposed rate design would impose harsh rate increases on its smallest customers, especially those taking service under rate RD-2, noting that even on a total bill basis, the smallest residential customers would have bill increases between eight percent and 23 percent (Low-Income Intervenors Brief at 1, citing Exh. Unitil-JLH-1, Sch. JLH-6, at 1-2; Low-Income Intervenors Reply Brief at 1). The Low-Income Intervenors state that energy prices have increased two to three times while energy assistance has declined thereby eroding the value of the low-income discount currently provided (Low-Income Intervenors Brief at 1).

In addition, the Low-Income Intervenors propose that the low-income RD-2 discount, as a percentage discount from the RD-1 charges, be restored to the level that was in effect on March 1, 1998, at the beginning of electric industry restructuring (id. at 1-2; Low-Income Intervenors Reply Brief at 1-2). The Low-Income Intervenors claim that this restoration would be consistent with the General Court's intent that the low-income discount should at all times remain comparable to its level at the beginning of the electric restructuring (Low-Income Intervenors Brief at 1-2, citing G.L. c. 164, § 1F(4)(I) as amended by St. 1997, §193). The Low-Income Intervenors claim that the impact of this discount restoration on other residential customers is *de minimis*, ranging from 0.2 percent to -0.3 percent (id. at 2, citing Exh. LI 1-1, at 3, 6; Low-Income Intervenors Reply Brief at 1-2).

In response to Fitchburg's characterization of the $3 to $7 per month increase in residential bills as "small," the Low-Income Intervenors question the judgment of the

Company's ability to determine what low-income customers could tolerate (Low-Income Intervenors Reply Brief at 1-2). The Low-Income Intervenors assert that the Company's proposal, to double the monthly customer charge for fixed cost recovery, downgrades the importance of price signals that reflect marginal costs, and therefore ignores the seriousness of the current energy crisis, which requires proper pricing for efficient use of energy (id. at 2).

iv. Fitchburg

The Company notes that the Low-Income Intervenors highlight the eight to 23 percent increases of the RD-1 rate class instead of what the Company characterized as the relatively small actual dollar increase which ranges between $3.00 to $7.00 per month (Fitchburg Brief at 99-100, citing Low-Income Intervenors Brief at 1). Contrary to the claim of the Low-Income Intervenors, Fitchburg states that its response to Record Request LI-1 indicates that the Department has never employed an across-the-board increase in a fully-litigated general rate case, adding that the Department has established a clear precedent in favor of designing rates with the goal of charging the underlying costs to serve (id. at 100, citing RR-LI-1).

Regarding the assertion by the Low-Income Intervenors that their proposed across-the-board rate design would reduce the impact on low-income customers, Fitchburg claims that such a proposal would cost the other customer classes, excluding the residential rate classes, by an amount of $841,600 more than the Company's proposal (Fitchburg Reply Brief at 25). The Company asserts that the Low-Income Intervenors misinterpreted M.G.L. c. 164, § 1F(4)(I) in arguing that the low-income discount should be restored to its 1998 percentage value (Fitchburg Brief at 100, citing Low-Income Intervenors Brief at 2). Fitchburg

claims that its proposed RD-2 discount is comparable to the discount provided prior to restructuring, noting that the RD-2 bundled base rates showed a 40 percent discount, as required by the Department, compared to its proposed distribution rates that reflect a 38 percent discount on the customer charge and a 58 percent discount on the kWh component charge (id. at 100-101, citing D.T.E. 05-27, at 329-330).

Fitchburg opposes the suggestion of the Low-Income Intervenors to discount the supply rates as shown in Exhibit LI 1-1, Att. LI 1-2, noting that the Department has no control over world energy prices and that the Department's policy favoring a 40 percent discount for low-income customers does not, and did not, include discounts on the supply components of the rates (id., citing D.T.E. 05-27, at 329; D.T.E. 03-40, at 388). The Company adds that the dollar discounts provided by Fitchburg from its RD-1 rates have increased from approximately $200,000 to $500,000 since restructuring (id. at 101).

Regarding the Attorney General's and DOER's opposition to the proposed increase in the customer charge for the residential rate class, Fitchburg claims that under its proposed rate for RD-1, the weighted average increase per bill for customers' consumption under 600 kWh is $5.83 per month, while the average increase for bills over 600 kWh per month is $12.23 per month, or more than twice that of the smaller usage customers (id. at 103-104). The Company states that, although it supports DOER's efforts to encourage energy conservation, DOER's proposal to maintain the current customer charge or reduce it to zero would distort price signals and that energy efficiency as a goal could not be achieved under such price distortion (id. at 104).

In response to DOER's claim that the Company's proposed rate design will reinforce the existing inclination on the part of the utilities to motivate customers to increase energy consumption, Fitchburg asserts that its proposed rates were designed in accordance with Department precedent to send consumers accurate price signals regarding the costs that will result from their consumption decisions (id.). The Company adds that a rate design that recovers a distribution utility's fixed costs through fixed charges, rather than volumetric charges, will send the appropriate price signals to end-users and will create a financial environment where distribution utilities can most fully participate in energy efficiency and demand response programs (id., citing D.P.U. 07-50, Unitil Comments dated September 10, 2007).

Fitchburg adds that its proposed rate design is consistent with the Department's goal of reducing disincentives to the efficient deployment of demand resources and are more appropriate for meeting the Department's stated principles: 1) to more closely align revenues to costs; 2) for rate continuity, fairness, and earnings stability; and 3) for simplicity, ease of understanding, and transparency (id. at 105, citing D.P.U. 07-50, Unitil Comments dated September 10, 2007, at 12; Comments of J. Reed at 22). The Company concludes that the bill impact and analyses shown in Exhibit Unitil-1, Schedule JLH-6 demonstrate the reasonableness of the rate design for each rate class (id.).

The Company emphasizes that it is important to follow the Department's well-established precedent of moving rates toward marginal costs (Fitchburg Reply Brief at 26). Fitchburg notes that since the marginal energy costs are lower than the present energy charges, a lowering of energy rates towards marginal costs requires raising the customer charge to produce the targeted

revenues (id.). The Company adds that even with the proposed increase in the customer charge, Fitchburg's energy charges are still substantially higher than the marginal energy costs (id.).

In the following section, where Fitchburg's proposals for each rate class are described in more detail, the Department will consider the issues raised by the parties on the basis of the Department's rate structure goals described in Section VI.A. above.

c. Rates RD-1 and RD-2

i. Fitchburg Proposal

Rates RD-1 and RD-2 are available for all domestic purposes in individual private dwellings and in individual apartments (M.D.P.U. Nos. 151, 152).[97] Rate RD-2 is a low-income rate, available to customers who are recipients of any means-tested public benefit program, the low-income home energy assistance program, or its successor program, for which eligibility does not exceed 200 percent of the federal poverty level based on a household's gross income (M.D.P.U. No. 152).[98] The existing rate RD-2 customer and energy charges are currently set at 38 percent and 59 percent, respectively, of the corresponding current charges for rate RD-1 (Exhs. Unitil-JLH-1, at 36; Unitil-JLH-1, Schs. JLH-5, at 5; JLH-6, at 2; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. Nos. 151, 152).

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[97] Fitchburg proposed to change the availability clause of rate RD-1 (Exh. Unitil-JLH-1, at 38; M.D.P.U. No. 151, at 1). This proposal is addressed in Section VI.F.1. below.

[98] The availability provision of the existing rate RD-2 provides a threshold of 175 percent of the federal poverty level based on a household's gross income (M.D.P.U. No. 146, at 1). This proposal is addressed in Section VI.F.2. below.

Fitchburg proposed to increase the monthly customer charge from $3.02 to $6.04 for rate RD-1 and from $1.87 to $3.74 for rate RD-2, maintaining the current discount level of 38 percent on the RD-1 customer charge to determine the RD-2 customer charge (Exhs. Unitil-JLH-1, Schs. JLH-5, at 5; JLH-6, at 1-2; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. Nos. 151, 152). The Company proposed to collect the remaining class revenue requirement through a single volumetric charge (Exhs. Unitil-JLH-1, Schs. JLH-5, at 5; JLH-6, at 1-2; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. Nos. 151, 152). The Company calculates a volumetric charge of $0.04967 per kWh for rate RD-1 and $0.02036 per kWh for rate RD-2, based on the RD-1 proposed revenue requirement and maintaining the 59 percent discount on the RD-2 volumetric charge (Exhs. Unitil-JLH-1, Schs. JLH-5, at 5; JLH-6, at 1-2; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. Nos. 151, 152).

ii. Analysis and Findings

In developing its proposed rates for RD-1, Fitchburg initially set the volumetric charge equal to marginal cost and calculated the customer charge as a residual to recover the remaining class' revenue target. This approach is consistent with the Department goal of efficiency in designing cost-based rates. However, at the proposed RD-1 class revenue requirement, the resulting customer charge is $18.93 per month, compared to the existing customer charge of $3.02 per month. Although this rate structure provides a lower base distribution volumetric charge, it would result in very high bill impacts both in percentage and dollar increases, especially for the low-use customers in both RD-1 and RD-2.

Parties have objected to the proposed doubling of the customer charge, with the Attorney General recommending instead a 50 percent increase and DOER suggesting no increase or eliminating the customer charge. The Low-Income Intervenors recommended an across-the-board increase and suggested restoring the level of discount for RD-2 to the level that was in effect on March 1, 1998.

In developing rates, the Department must balance its rate structure goals of efficiency, simplicity, continuity, fairness, and earnings stability. The Department notes that the existing level of monthly customer charge for rate RD-1 is significantly below the customer-related embedded cost.[99] This test-year level of customer-related cost is relatively fixed. Regardless of the amount of monthly kWh that an RD-1 customer consumes, Fitchburg needs to recover this fixed level of cost. Therefore, eliminating the customer charge or not increasing the monthly customer charge moves away from the Department's goal of developing cost-based rates.

Regarding the Low Income Intervenors' suggestion to allocate the total Company rate increase on an equal percentage basis for each rate class, the Department sometimes deviates from the results of the COSS due to rate continuity considerations by placing a cap on the maximum increase on the revenue requirement of a given rate class. The Low-Income Intervenors' proposal would completely nullify the results of the Company's COSS and, therefore, it is not consistent with the Department rate structure goal of fairness. See Section VI.E.1.

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[99] Compared to the existing RD-1 customer charge of $3.02 per month, the test-year unit customer-related cost for RD-1 (and RD-2) based on the Company's COSS is $16.30 per month (Exh. DPU 2-14 (Rev.)).

Regarding the request by the Low-Income Intervenors to provide a discount for RD-2 customers that is comparable to what was in effect on March 1, 1998, the record shows that such an approach would significantly increase the percentage discount on the base distribution rate. More specifically, in 1998, the low-income discount was approximately 41 percent on the base distribution charges and a 25 percent discount on the total bill (Exh. LI 1-1). Providing that same level of discount on the total bill for RD-2 would require a base distribution rate discount of approximately 83 percent under the Company's proposed RD-1 charges (id. at Att. LI 1-2, at 7). As the Company noted, because it has no control over the market price of electricity, further increases in the supply price of electricity could make the required discounted base distribution rates become negative (id.).[100]

In the Investigation by the Department of Public Utilities on its own Motion into Expanding Low-Income Consumer Protections and Assistance, Including Standards For Arrearage Management Programs, Discount Rate, Service Termination, and Energy Efficiency Programs, D.P.U. 08-04, Order Opening Investigation (Feb. 12, 2008), the Department recognized "consumers of electric and gas companies in the Commonwealth face serious challenges meeting utility costs, staying current with utility bills, and avoiding service terminations. … Utility bill arrearages and service terminations are a significant public policy concern, as they may (1) require consumers to sacrifice other basic needs (for example, health

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[100] Fitchburg noted, for example, that if the price of supply of electricity had risen an additional $0.0096 per kWh over the existing level, then the base distribution rate would become negative in order to provide the same level of discount as of March 1, 1998 (Exh. LI 1-1, Att. LI 1-2, at 7).

care, food, transportation, or child care) to pay for heating and other energy expenses, (2) leave consumers without essential utility services, and (3) cause consumers to take extraordinary steps (such as moving to new locations in order to renew their utility service)." Id. at 3. Accordingly, in D.P.U. 08-04, the Department will investigate, among other things, whether to increase assistance to low income consumers in meeting their energy costs, such as by increasing the discount rate, or expanding the eligibility for the discount rate. D.P.U. 08-04, at 4. Therefore, to be consistent across all distribution companies, in this case we will not implement a discount for RD-2 customers that is comparable to what was in effect on March 1, 1998. Rather, we will investigate this issue further in D.P.U. 08-04.[101]

The Department agrees with DOER (1) regarding the urgency of moving towards rate designs that provide greater incentives for reducing and/or altering the pattern of end-use energy consumption, and (2) that such rate design mechanisms can act as a powerful policy tool to achieve these goals. However, we decline, at this time, to accept DOER's proposal regarding the customer charge for RD-1, prior to the completion of our investigation in D.P.U. 07-50, and in recognition of the fact that the proposed customer charge reflects only a modest increase relative to what would be appropriate based on cost causation principles. Consequently, based on the Department's rate structure goals, including rate continuity, the Department finds that a monthly customer charge of $5.29 for RD-1 is moderate and reasonable. Accordingly, the

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[101] Any changes ordered in D.P.U. 08-04 regarding low-income eligibility or the rate discount could be adopted and accommodated by Fitchburg through its RAAF.

Department directs the Company to set the monthly customer charge equal to $5.29 and recover the remaining class revenue target, as specified on Schedule 10, from the volumetric charge.

Regarding the charges for rate RD-2, the Department notes that maintaining the existing discount of 38 percent on the RD-1 customer charge and 59 percent on the RD-1 volumetric charge could result in relatively higher bill impacts for low-use customers compared to the bill impacts for higher-use customers within the RD-2 rate class. The Department finds that a 55 percent discount, applied both on the RD-1 customer and volumetric charges, to determine the customer and volumetric charges, respectively, for rate RD-2, could minimize this disparity in bill impacts and at the same time maintain at approximately the same level the total amount of subsidy for the RD-2 class. In addition, and in consideration of the fact that the Department is investigating appropriate discount rates for all companies in D.P.U. 08-04, the Department finds that this 55 percent discount level is appropriate at this time and will continue to provide rate relief to low-income customers with minimal effects on the rates of non-subsidized customers.[102] Accordingly, the Department directs the Company to use a 55 percent discount that will be applied on the customer and volumetric charges of rate RD-1 to determine the corresponding charges for RD-2.

Regarding Fitchburg's proposal to recover the low-income discount through the RAAF, we find this proposal consistent with Department precedent and accordingly approve it. See D.P.U. 05-27, at 339-342.

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[102] From a practical standpoint, the end result of increasing the discount to 55 percent comes closer to the result advocated by the Low-Income Intervenors, because the customer charge will increase by only $0.51.

d. Rate GD-1

i. Fitchburg Proposal

Rate GD-1 is available to all customers with non-residential loads consistently under four KWs and energy consumption less than 850 kWh per month (M.D.P.U. 153, at 1). The Company proposed to increase the monthly customer charge from $6.83 to $9.20 for rate GD-1 (Exhs. Unitil-JLH-1, Schs. JLH-5, at 6; JLH-6, at 3; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 1). The current volumetric charge for rate GD-1 is $0.04248 per kWh and the proposed volumetric charge for rate GD-1 is $0.05253 per kWh (Exhs. Unitil-JLH-1, Schs. JLH-5, at 6, JLH-6, at 3; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 1).

ii. Analysis and Findings

In developing the charges for GD-1, the Department notes that the Company applied the same method used for developing the charges for RD-1. This approach is consistent with the Department's goal of efficiency in rate design. Because the calculated rates result in a high customer charge and unacceptable bill impacts to small users, the Company proposed to cap the customer charge increase at 125 percent of the class overall average percentage increase.

The Attorney General and DOER have suggested to mitigate or eliminate the Company proposed increase in the customer charge. As stated above in the case of rate RD-1, the Department must balance its competing rate structure goals. The existing level of monthly

customer charge for rate GD-1 is significantly below the customer-related embedded cost and is relatively fixed.[103]

The Department notes that 35.3 percent of the GD-1 customers have monthly usage that ranges from 0 kWh to 50 kWh (RR-DPU-18, Att. 1, at 3). An additional 12.0 percent of GD-1 customers have monthly usage that ranges from 50 kWh to 100 kWh, giving a total of 47.3 percent of customers in the GD-1 rate class with monthly consumption ranging from 0 kWh to 100 kWh per month (id.). Therefore, eliminating the customer charge or not increasing the monthly customer charge towards the GD-1 level of monthly customer cost, would be a movement away from the Department's rate structure goal of efficiency and earnings stability.

In addition, setting a relatively low monthly customer charge, compared to the monthly customer costs, would result in intra-class subsidization thereby negating the Department's goal of fairness. Considering its rate structure goals, including rate continuity, the Department finds that a monthly customer charge of $8.23 is reasonable. Accordingly, the Department directs the Company to set the monthly customer charge equal to $8.23 and recover the remaining class revenue target, as specified on Schedule 10, from the volumetric charge.

e. Rates GD-2, GD-4 and GD-5

i. Fitchburg Proposal

Rate GD-2 is available to commercial customers with demands, excluding space heating and water heating loads eligible under the GD-5 rate, consistently greater than or equal to

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[103] Compared to the existing GD-1 customer charge of $6.83 per month, the test-year unit customer-related cost for GD-1 based on the Company's COSS is $17.85 per month (Exh. DPU 2-14 (Rev.)).

four killowats ("KW") or energy consumption consistently greater than or equal to 850 kWh per month and generally less than 120,000 kWh per month (M.D.P.U. 153, at 1). Rate GD-4 is an optional general delivery time-of-use rate available to customers billed under the GD-2 rate (id.).[104] Rate GD-5 is an optional water and/or space heating delivery rate (id.).

Fitchburg proposed to increase the monthly customer charge from $6.83 to $9.20 for rates GD-2 and GD-4 and maintain the existing monthly customer charge for rate GD-5 of zero (Exhs. Unitil-JLH-1, Schs. JLH-5, at 6-8; JLH-6, at 4, 6-7; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 1).[105] For rate GD-2, the Company proposed to increase the volumetric charge from $0.01419 per kWh to $0.01499 per kWh (Exhs. Unitil-JLH-1, Schs. JLH-5, at 6; JLH-6, at 4; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 1). Also, Fitchburg proposed to increase the demand charge for rate GD-2 from $5.94 per KW to $6.87 per KW (Exhs. Unitil-JLH-1, Schs. JLH-5, at 6; JLH-6, at 4; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 2).

For rate GD-4, the Company proposed to increase the on-peak volumetric charge from $0.00671 per kWh to $0.00697 per kWh and the off-peak volumetric charge from $0.00148 per kWh to $0.00154 per kWh (Exhs. Unitil-JLH-1, Schs. JLH-5, at 7; JLH-6, at 6; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 1). Also, the Company proposed to

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[104] The Company proposed to close to new customers the rate GD-4 (Exh. Unitil-JLH-1, at 38; M.D.P.U. 153, at 3). This proposal is addressed in Section VI.F.3. below.

[105] Compared to the existing customer charge of $6.83 per month for GD-2, GD-4 (and GD-1), the unit customer-related cost for the regular (medium) general service rate (GD-2, G-4, and GD-5) based on the Company's COSS is $30.49 per month (Exh. DPU-FGE 2-24 (Rev.)).

increase the demand charge for rate GD-4 from $2.33 per KW to $2.69 per KW (Exhs. Unitil-JLH-1, Schs. JLH-5, at 7; JLH-6, at 6; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 2). For rate GD-5, Fitchburg proposed to increase the volumetric charge from $0.03709 per kWh to $0.04171 per kWh (Exhs. Unitil-JLH-1, Schs. JLH-5, at 8, JLH-6, at 7; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 153, at 4).

ii. Analysis and Findings

In developing the proposed charges for rates GD-2 and GD-4, the Department notes that the Company initially set the demand charge equal to marginal cost and adjusted the customer and volumetric charges equally to achieve the targeted revenues. This approach is consistent with the Department's efficiency goal in rate design. Because the calculated demand charge increases over the present rates are substantial for both GD-2 and GD-4, the Company proposed to cap the demand charge increases to 125 percent of the class overall average increase, set the customer charges at the same level as that proposed for rate GD-1,[106] and adjusted the volumetric charges to achieve the target revenues. Based on the marginal cost and the resulting bill impacts for rates GD-2 and GD-4, the Department finds that designing rates GD-2 and GD-4 with a $8.23 monthly customer charge satisfies the Department's goal of rate continuity while moving closer to marginal cost-based rates.

In the case of rate GD-5, the Department finds it reasonable to maintain the monthly customer charge at zero because rate GD-5 is a rider for rate GD-2. Consistent with the

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[106] The Department notes that the existing customer charges for rates GD-1, GD-2, and G-4 are at the same level.

Company's proposed rate design method, the Department directs the Company to collect the remaining class revenue target for GD-2, including GD-4 and GD-5, as specified in Schedule 10, through the volumetric and demand charges, capping the demand charge at 125 percent of the increase for the GD-2 and GD-4 rate classes.

f. Rate GD-3

i. Fitchburg Proposal

Rate GD-3 is available to C&I customers that have monthly usage consistently greater than 120,000 kWh (M.D.P.U. No. 153, at 2). Fitchburg proposed to maintain the existing monthly customer charge of $500.00 (Exhs. Unitil-JLH-1, Schs. JLH-5, at 7, JLH-6, at 5; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. No. 153, at 2). The Company proposed to reduce the rate GD-3 on-peak volumetric charge from $0.01225 per kWh to $0.00959 per kWh and the off-peak volumetric charge from $0.00275 per kWh to $0.00215 per kWh (Exhs. Unitil-JLH-1, Schs. JLH-5, at 7, JLH-6, at 5; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. No. 153, at 2). The Company proposed to increase the rate GD-3 demand charge from $2.95 per kilo volt amperes ("kVA") to $3.77 per kVA (Exhs. Unitil-JLH-1, Schs. JLH-5, at 7, JLH-6, at 5; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. No. 153, at 2).

ii. Analysis and Findings

In developing the proposed charges for GD-3, the Company initially set the demand charge equal to marginal cost and adjusted the customer and volumetric charges equally to achieve the target revenue. This approach is consistent with the Department's goal of efficiency in rate design. The Department, however, notes that because the calculated demand charge

increases over the present charge substantially, Fitchburg capped the demand charge increase to 125 percent of the Company average percentage increase, maintained the current customer charge, and adjusted the volumetric charges by an equal percentage to achieve the target revenue. The Department finds that the Company's proposal meets the goal of rate continuity, moves toward marginal cost based rates, and is consistent with the existing GD-3 structure of rates. Consistent with the Company's proposed rate design method, the Department directs the Company to maintain the monthly customer charge at $500.00 per month, and collect the remaining class revenue responsibility of rate GD-3, as specified in Schedule 10, through the volumetric and demand charges, capping the demand charge at 125 percent of the average percentage increase for the Company as a whole.

g. Rate SD

i. Fitchburg Proposal

Rate SD is available to all customers for outdoor lighting delivery service with the Company's standard lighting fixtures mounted on existing poles (M.D.P.U. No. 154, at 1). The Company proposed to increase the luminaire charge for all classes of outdoor lighting (Exhs. Unitil-JLH-1, Schs. JLH-5, at 8, JLH-6, at 8; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. 154, at 2-3). Fitchburg also proposed to maintain the existing volumetric charge for all classes of outdoor lighting at $0.000570 per kWh (Exhs. Unitil-JLH-1, Schs. JLH-5, at 8, JLH-6, at 8; DPU-FGE 2-24, Att. 2, at 9-12 (Rev.); M.D.P.U. No. 154, at 1).

ii. Analysis and Findings

In calculating the proposed charges for rate SD, the Company set the distribution volumetric charge at the current level and adjusted the luminaire or fixture rates equi-proportionately to achieve the target revenue. The Department finds that the rate design method employed by the Company to design the charges for rate SD is reasonable and consistent with the existing structure of the SD rate. Accordingly, the Department directs the Company to set the volumetric rate at the current level and adjust equi-proportionately the monthly luminaire charges to collect the remaining class revenue responsibility of rate SD as specified in Schedule 10.

In its compliance filing to this Order, the Department directs the Company to provide the Department complete documentation of its rate design and bill impact calculations, including an electronic spreadsheet file with cell formulas, consistent with Exhibit DPU-FGE 2-23 and its attachments.

F. Tariff Changes

1. Residential Delivery Service, Schedule RD-1

Fitchburg proposed to amend the availability provision of the Residential Delivery Service, Schedule RD-1 (Exh. Unitil-JLH-1, at 38; M.D.P.U. No. 151, at 1). More specifically, Fitchburg proposed to clarify the availability provision by stating that this rate is also available to existing churches and farms at existing locations that received service under this rate prior to the effective date of this tariff (M.D.P.U. No. 151, at 1). In addition, the Company

proposed that "[a]n existing church or farm which changes its load characteristics may no longer qualify for this rate schedule, at the discretion of the Company" (id.).

The Company stated that the proposed changes will eliminate any confusion regarding the application of this tariff to churches and farms that are grandfathered under this rate (Exh. Unitil-JLH-1, at 38). Fitchburg stated that this rate was closed to new church and farm customers in D.P.U. 84-145-A (Exh. DPU-FGE 2-11). The Company added that the purpose of this change in the availability provision is to restrict existing churches and farms from materially changing their load characteristics (Exhs. Unitil-JLH-1, at 38, DPU-FGE 2-13; Tr. 4, at 591-595). The Company stated that individual customers' load characteristics are evaluated on a case-by-case basis and that no specifically-defined threshold has been pre-determined (Exh. DPU-FGE 2-12; Tr. 4, at 594-596).

The Company stated that the Department should not be concerned about customer complaints arising from numerous customers losing their grandfathered status on this rate because this is not Fitchburg's intention (RR-DPU-38). Nonetheless, to address the use of the phrase "at the discretion of the Company" in the proposed revision of the RD-1 tariff availability provision, the Company suggested the following to replace the last sentence of the initially proposed revision: "An existing church or farm which changes its load characteristics by adding new load may no longer qualify for this rate schedule" (id.). No party commented on the Company's proposal.

The record shows that during the test year, there were 32 churches taking service under Schedule RD-1 with consumption ranging from 63 kWh to 98,400 kWh in 2006

(Exh. DPU-FGE 2-13, Att. 1). Similarly, there were 32 farms taking service under Schedule RD-1 with consumption ranging from 45 kWh to 54,522 kWh in 2006 (id.). In addition, Fitchburg does not have any defined or pre-determined threshold as the basis for evaluating the load characteristics of existing church or farm customers for the purpose of determining whether to retain or remove them from their current grandfathered status. The Department is concerned about Fitchburg's proposed change in the availability provision that grants full discretion to the Company. Accordingly, the Department denies the last sentence of the Company's proposed change to the availability provision of RD-1 and directs the Company to replace that sentence with the proposed language as noted above and as stated in Record Request DPU-38.

2. Low-Income Residential, Schedule RD-2

The Company proposed to revise the availability provision of the Low-Income Residential, Schedule Rate RD-2 by changing the existing percentage threshold from 175 percent to 200 percent of federal poverty level based on a household's gross income (Exh. Unitil-JLH-1, at 38; M.D.P.U. No. 152, at 1). Fitchburg stated that this proposed change implements the Department's directive in D.T.E. 05-87 (Exh. Unitil-JLH-1, at 38). The Departments finds that this proposed change is consistent with Department precedent and accordingly approves it.

3. Optional General Delivery Time-of-Use, Schedule GD-4

The Company also proposed to close to new customers the existing Optional General Delivery Time-of-Use, Schedule GD-4 (Exh. Unitil-JLH-1, at 38; M.D.P.U. No. 153, at 3). Fitchburg provided several reasons for this proposal. First, there are only two customers being

served under this optional rate and it is inefficient to continue administering such a rate schedule (Exhs. Unitil-JLH-1, at 38; DPU-FGE 2-14).

Second, the regulations accompanying the unbundling of rates have distorted the present GD-4 rate design making it inconsistent with the other general service tariffs (Exhs. Unitil-JLH-1, at 38-39; Exh. DPU-FGE 2-14). More specifically, Fitchburg stated that in D.T.E. 02-24/25, the GD-4 average distribution charges were reduced by 63 percent via a distribution revenue shift necessitated by the Electric Restructuring Act that mandated a 15 percent rate reduction from the total August 1997 rates (Exh. DPU-FGE 2-14). This distribution revenue shift, with the need to maintain a uniform transition charge, moved the GD-4 charges even further away from the GD-2 charges (id. at Att. 1).[107] The Company added that it wants to close this optional Rate GD-4 in order to eliminate any distribution revenue erosion that may arise from existing GD-2 customers who may opt to switch to GD-4 when the transition charge is reduced or eliminated in the future, further making the GD-4 rates more attractive (Exh. DPU-FGE 2-14).

Finally, Fitchburg stated that the existing GD-4 rate, designed prior to the unbundling of charges, is not based on marginal delivery costs (id.). The Company explained that this rate schedule has been revised several times to maintain its previous relationship to the GD-2 rate and

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[107] This distribution revenue shift in D.T.E. 02-24/25 resulted in the final average distribution rate of 0.494 cents per kWh for Rate GD-4 compared with the 3.816 cents per kWh for Rate GD-2 at a uniform transition charge of 1.657 cents per kWh for GD-2 and GD-4 (Exh. DPU-FGE 2-14, Att. 1).

that these changes over time resulted in charges that no longer reflect the underlying costs to serve (id.).[108] No party commented on the Company's proposal.

There are only two customers taking service under this rate class. In addition, as a result of the shifting of distribution revenues between rate classes in Fitchburg's previous rate case to comply with the rate caps and unbundling requirements of the Electric Restructuring Act, the GD-4 charges were set at a level lower then the GD-2 charges and further away from the cost to serve this rate class (id. at 1-2 & Att. 1, at 1-2). Customers receiving service under GD-2 are also eligible to receive service under GD-4, which is an optional general delivery time-of-use rate (M.D.P.U. No. 153, at 3). The lower charges for GD-4 may result in customers currently receiving service under GD-2 switching service to GD-4. Over time, this migration could result in revenue erosion for the Company and could violate the Department rate structure goal of earnings stability. D.P.U. 02-24/25, at 252; D.T.E. 01-56, at 134; D.T.E. 01-50, at 28; D.P.U. 96-50 (Phase I) at 133. The load characteristics and cost to serve GD-4 are the same as GD-2 (Exh. Unitil-JLH-1, Sch. JLH-2). Therefore, based on the above facts, the Department finds the Company's proposal reasonable and accordingly approves it.

4. Separate Tariff for Summary of Charges

During the proceeding, Fitchburg provided a schedule that summarizes the charges for all the Company's rates in a form of a separate tariff (Exh. DPU-FGE 2-15). This separate tariff

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[108] To illustrate this divergence of the existing GD-4 charges from marginal costs, Fitchburg noted that its marginal cost study shows that the on-peak to off-peak ratio of cost is 42:1, compared to the on-peak to-off-peak ratio of the existing GD-4 charges which is less 5:1 (Exhs. DPU-FGE 2-14, Unitil JLH-1, Sch. JLH-3, Table 6).

shows for each rate class: the M.D.P.U. number, the applicable blocks of kWh hours use, customer and other distribution charges, other charges including pension/PBOP adjustment factor, RAAF, default service adjustment, transition, transmission, renewable, and energy efficiency charges, and the date of the last change of the rates (id.; RR-DPU-17).

Fitchburg stated that this separate tariff, which shows a summary of charges for each rate class, would help customers readily understand their bills, unlike the existing tariffs that show additional information, including historical information, which may not be necessary for the purpose of quickly verifying customers' bills (Tr. 3, at 456-458). The Company indicated that it would be amenable to make such a separate tariff filing and revised its proposed tariff schedules such that no charges would be shown in those tariffs (id. at 457-458).

No party commented on the separate tariff that summarizes the charges for each rate class of Fitchburg. The Department finds the use of this tariff administratively efficient and consistent with Department precedent. See, e.g, NSTAR Electric, D.T.E. 05-85, M.D.P.U. No. 190, (2005). Accordingly, the Department directs the Company in its compliance filing to this Order to file a separate tariff that summarizes the approved charges for each rate class consistent with the schedule shown in Record Request DPU-17. In addition, the Department directs Fitchburg to accordingly revise its tariffs for each rate class by removing all charges and instead placing notations, where appropriate, referring to the tariff schedule showing the summary of charges by rate class.

## VII. APPLICATION OF G.L. c. 164, § 1E PENALTY PROVISIONS

### A. Introduction

Fitchburg has had service quality ("SQ") plans in effect for both its gas and electric divisions since 2002 (Exh. Unitil-MHC-1, at 14). These plans were established by the Department pursuant to G.L. c. 164, § 1E ("Section 1E"). Service Quality Standards for Electric Distribution Companies and Local Gas Distribution Companies, D.T.E. 04-116-B (2006); Service Quality Standards for Electric Distribution Companies and Local Gas Distribution Companies, D.T.E. 99-84 (June 29, 2001). Because the Company is not under a PBR or merger-related rate plan, the penalty provisions of its SQ plans were not in effect; rather Fitchburg was directed to file SQ annual reports for information purposes only. See, e.g., 2002 Service Quality Reports for Electric Distribution and Local Gas Distribution Companies, D.T.E. 03-10 through D.T.E. 03-23, at 3-4, Letter Orders (Sept. 30, 2003). In Fitchburg Gas and Electric Light Company, D.T.E. 06-109 (2006), the Department approved a settlement agreement between Fitchburg and the Attorney General that, in relevant part, made the monetary penalty provisions of the Company's gas division SQ plan applicable as of January 2007 (see Exh. MHC-1, at 14-15). Fitchburg's electric division, however, remains exempt from the revenue penalty and penalty offset provisions of the SQ plan (id. at 15).

### B. Positions of the Parties

#### 1. Attorney General

The Attorney General notes that the Company's electric division has a SQ plan, but since the Company's electric division does not operate under a PBR plan, it is not subject to penalties

for failing to meet its SQ benchmarks (Attorney General Brief at 56, citing Tr. 1, at 77). The Attorney General contends that had Fitchburg been subject to penalties, it would have had to pay penalties during the past five years for failing to meet various SQ benchmarks, including the benchmarks that measure the average frequency and duration of electric outages (id., citing RR-AG-4, Att. 1). The Attorney General argues that in light of this failure, the Company needs an added inducement to meet its SQ standards in the form of SQ penalties (id.). The Attorney General goes on to argue that the need for penalties for ensuring that companies meet their SQ standards is the same regardless of whether or not a company is operating under a PBR (id. at 56-57).

The Attorney General argues that Section 1E requires all gas and electric distribution companies to file SQ plans, and also authorizes the Department to levy penalties on any company that fails to meet its SQ standards, even if it does not operate under a PBR (id.). In support of her proposal, the Attorney General contends that the Company's gas division had assented to being subject to SQ monetary penalties as part of the settlement agreement in D.T.E. 06-109, and that the Department conditioned its approval of the most recent rate settlement for Western Massachusetts Electric Company ("WMECo") on the understanding that this company would be subject to SQ penalties (Attorney General Reply Brief at 30, citing Western Massachusetts Electric Company, D.T.E. 06-55 (2006)). Therefore, the Attorney General recommends that the Department require Fitchburg's electric division to be subject to penalties for poor SQ (Attorney General Brief at 57).

2. Fitchburg

Fitchburg maintains that the statutory language of Section 1E can be reasonably interpreted as subjecting only those companies with PBR plans in effect to the SQ penalty provisions of Section 1E (Fitchburg Reply Brief at 26). The Company reasons that because its electric division is not operating under a PBR mechanism, its electric division is not subject to the penalty provisions of Section 1E (Fitchburg Brief at 106). Fitchburg maintains that the Department has also found that the Company's SQ reports for its electric division are filed for information purposes only (id. at 107-108, citing 2006 Service Quality Reports for Electric Distribution and Local Gas Distribution Companies, D.T.E./D.P.U. 07-12 through D.T.E./D.P.U. 07-25, at 4 n.4, Letter Orders (Sept. 7, 2007); D.T.E. 03-10 through D.T.E. 03-23, at 3-4, Letter Orders (Sept. 30, 2003). The Company distinguishes the application of SQ penalties to its gas division from its electric division, noting that D.T.E. 06-109 was the result of settlement negotiations between the Company and the Attorney General (id. at 106-107, citing Exh. Unitil-MHC-1, at 15).

Fitchburg disputes the Attorney General's contention that the Company has failed to meet its SQ benchmarks (id. at 107). According to the Company, out of eight SQ performance measures that are subject to revenue penalties, Fitchburg met or exceeded its SQ standards 46 out of 48 times during the past six years (id.; Fitchburg Reply Brief at 27). The Company contends that in one of the two years where it had failed to meet a performance benchmark for an SQ category, the theoretical penalty that would have been applied for that particular

performance measure would have been offset by superior performance in other SQ categories (Fitchburg Brief at 107; Fitchburg Reply Brief at 27, citing RR-AG-3, Att. 1).

C. Analysis and Findings

The Department has found that if a utility is not subject to a PBR, nor is operating under merger-related or acquisition-related rate plans, its SQ performance is not subject to the monetary penalty provisions of Section 1E. D.T.E./D.P.U. 07-12 through D.P.U./D.T.E. 07-25, at 3-4, Letter Orders (Sept. 7, 2007); D.T.E. 03-10 through D.T.E. 03-23, at 3-4, Letter Orders (Sept. 30, 2003); Eastern Enterprises/Essex Acquisition, D.T.E. 98-27, at 17 (1998). In the case of WMECo, the Department concluded that the earnings sharing provisions contained in the D.T.E. 06-55 rate settlement constituted an incentive mechanism for the purpose of the applicability of the penalty provisions of Section 1E. D.T.E. 06-55, at 25. In addition, while Fitchburg's gas division is subject to the penalty provisions of its respective SQ plan, this provision was implemented pursuant to a settlement agreement which carries no precedential value. D.T.E. 06-109, Settlement at § 3.1. See also Dover Water Company, D.P.U. 90-86, at 5 (1990).

Fitchburg met or exceeded its SQ benchmarks in five of the past six years (RR-AG-3, Att. 1). A review of the Department's SQ Orders for the reporting years of 2002 through 2006 confirms that Fitchburg's electric division failed to meet its System Average Interruption Duration Index and System Average Interruption Frequency Index benchmarks during 2002, which was partially offset by superior performance in other measures. D.T.E. 03-10 through

D.T.E. 03-23, at 4 n.5, Letter Orders (Sept. 30, 2003).[109] As such, the Department finds that the Company is largely meeting its SQ benchmarks.

However, service quality and reliability are fundamental obligations of all companies under the Department's jurisdiction. While Section 1E may be interpreted as not applying here, Fitchburg's electric division is the only investor-owned gas or electric utility in Massachusetts that remains exempt from the penalty provisions of Section 1E. Nonetheless, as noted above, Fitchburg does have service quality standards in place, and the Company has been largely successful in maintaining these standards.

The Department intends to monitor Fitchburg's service quality performance. Should the Company fail to meet its established benchmarks, the Department may pursue a remedy under Section 93.[110] Voluntary acceptance by the Company of the penalty provisions of Section 1E would obviate the need for the Department to invoke the provisions of Section 93 as a remedy for any deterioration in service quality performance by Fitchburg's electric division.

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[109] The net theoretical penalty would have been $51,747 for that year (RR-AG-3, Att. 1).

[110] The Department is authorized pursuant to Section 93 to investigate complaints, and order reductions, related to rates and service quality for each distribution, transmission, and gas company. See D.T.E. 98-27, at 14.

# VIII. SCHEDULES

## A. Schedule 1

REVENUE REQUIREMENTS AND
CALCULATION OF REVENUE INCREASE

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| **COST OF SERVICE** | | | | |
| Total O&M Expense [1] | $8,002,293 | ($139,809) | ($176,787) | $7,685,697 |
| Depreciation and Amortization | 4,274,834 | (78,990) | (190,092) | 4,005,752 |
| Taxes Other Than Income Taxes | 932,601 | (13,036) | (8,289) | 911,276 |
| Income Taxes | 1,518,085 | (417) | (111,006) | 1,406,662 |
| Interest On Customer Deposits | 15,813 | 0 | 0 | 15,813 |
| Return On Rate Base | 4,471,587 | (1,229) | (239,216) | 4,231,142 |
| Total Cost Of Service | $19,215,213 | (233,481) | (725,390) | $18,256,342 |
| **REVENUES** | | | | |
| Distribution Revenues | $15,714,170 | 0 | 233,191 | $15,947,361 |
| Other Operating Revenues | 192,379 | 0 | 0 | 192,379 |
| Total Revenues | 15,906,549 | 0 | 233,191 | 16,139,740 |
| Revenue Deficiency | $3,308,664 | ($233,481) | ($958,581) | $2,116,602 |

[1] The Per Company number is the total O&M Expense per company on Sch. 2 minus $130,842 of Basic Service related costs transferred to Basic Service.

B. Schedule 2

OPERATIONS AND MAINTENANCE
EXPENSES

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| **Total O&M Expense Per Books** | $59,351,886 | 0 | 0 | 59,351,886 |
| Less: Energy Efficiency | 1,063,848 | 0 | 0 | 1,063,848 |
| External Transmission | 6,264,348 | 0 | 0 | 6,264,348 |
| Transition Charge | 10,538,137 | 0 | 0 | 10,538,137 |
| Pension/PBOP Adjustment Factor | 427,469 | 0 | 0 | 427,469 |
| Rental Water Heaters | 2,114 | 0 | 0 | 2,114 |
| Default Service | 32,963,224 | 0 | 0 | 32,963,224 |
| Sub-Total | 8,092,746 | 0 | 0 | 8,092,746 |
| **ADJUSTMENTS TO O&M EXPENSE:** | | | | |
| Costs Transferred to Basic Service | 0 | 0 | (130,842) | (130,842) |
| Incentive Compensation | 0 | 0 | 0 | 0 |
| Inflation Allowance | 100,634 | (1,862) | 13,666 | 112,438 |
| Medical and Dental Expense | 25,557 | 0 | 0 | 25,557 |
| Membership Fees | (542) | 0 | 0 | (542) |
| Non-Utility WH and CB Rental Program | (2,980) | 0 | 0 | (2,980) |
| Payroll Expense | 274,682 | (16,357) | 0 | 258,325 |
| Property and Liability Insurance | 34,819 | 2,349 | (1,742) | 35,426 |
| Rate Case Expense * | 98,064 | 0 | (49,223) | 48,841 |
| Shareholder Services & Dividend Reinvestment Prog. | 0 | (35,860) | 0 | (35,860) |
| Low Income Arrearage Management Program Costs | (26) | 0 | 0 | (26) |
| Uncollectible Expense | 175,989 | (78,753) | (8,646) | 88,590 |
| Uncollectible Non Delivery | (288,368) | 0 | 0 | (288,368) |
| USC Service Charge | 0 | (9,326) | 0 | (9,326) |
| Adjustment to O&M Expense | 417,829 | (139,809) | (176,787) | 101,233 |
| O&M Expense | 8,510,575 | (139,809) | (176,787) | 8,193,979 |
| Less Internal Transmission | 508,282 | 0 | 0 | 508,282 |
| DISTRIBUTION O&M EXPENSE | $8,002,293 | ($139,809) | ($176,787) | $7,685,697 |

C. Schedule 3

DEPRECIATION AND AMORTIZATION EXPENSES

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| **Depreciation & Amortization Expense** | $5,326,106 | ($78,990) | ($13,800) | $5,233,316 |
| Less: Transition Charge | 820,264 | 0 | 0 | 820,264 |
| Total Test Year D&A | 4,505,842 | (78,990) | (13,800) | 6,053,580 |
| Test Year Adjustment to Depreciation | 161,479 | 0 | 0 | 161,479 |
| Test Year Adjustment to Amortization | 0 | 0 | (176,317) | (176,317) |
| Sub-Total | 4,667,321 | (78,990) | (190,117) | 4,398,214 |
| Less Internal Transmission | 392,487 | 0 | (25) | 392,462 |
| **Total Distribution D & A Expense** | $4,274,834 | ($78,990) | ($190,092) | $4,005,752 |

D. Schedule 4

RATE BASE AND RETURN
ON RATE BASE

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| Utility Plant in Service | $92,947,722 | $0 | ($683,164) | $92,264,558 |
| Less Internal Transmission | 9,275,753 | 0 | (400) | $9,275,353 |
| | 83,671,969 | 0 | (683,564) | 82,988,405 |
| | | | | 19,886,504 |
| Reserve For Depreciation | 31,511,276 | 0 | (683,564) | 30,827,712 |
| Less Internal Transmission | 2,993,762 | 0 | 0 | 2,993,762 |
| | 28,517,514 | 0 | (683,564) | 27,833,950 |
| Net Utility Plant in Service | 55,154,455 | 0 | (683,564) | 54,470,891 |
| ADDITIONS TO PLANT: | | | | |
| Cash Working Capital | 818,865 | (14,306) | (18,090) | 786,468 |
| ISO Deposit | 848,811 | 0 | 0 | 848,811 |
| Materials and Supplies | 752,344 | 0 | 0 | 752,344 |
| Less Internal Transmission Materials and Supplies | 79,434 | 0 | 0 | 79,434 |
| Total Additions to Plant | 2,340,586 | (14,306) | (18,090) | 2,308,189 |
| DEDUCTIONS FROM PLANT: | | | | |
| Reserve for Deferred Taxes | 5,482,413 | 0 | 0 | 5,482,413 |
| Customer Advances | 178,653 | 0 | 0 | 178,653 |
| Unclaimed Funds | 2,528 | 0 | 0 | 2,528 |
| Customer Deposits | 351,436 | 0 | 0 | 351,436 |
| ISO Deposit | 0 | 0 | 848,811 | 848,811 |
| Less Internal Transmission Res. for Def. Taxes | 575,714 | 0 | 0 | 575,714 |
| | 5,439,316 | 0 | 848,811 | 6,288,127 |
| RATE BASE | $52,055,725 | ($14,306) | ($1,550,465) | $50,490,953 |
| COST OF CAPITAL | 8.59% | 0.00% | -0.21% | 8.38% |
| RETURN ON RATE BASE | $4,471,587 | ($1,229) | ($239,216) | $4,231,142 |

E. Schedule 5

COST OF CAPITAL

<----------PER COMPANY---------->

| | PRINCIPAL | PERCENTAGE | COST | RATE OF RETURN |
|---|---|---|---|---|
| Long-Term Debt | $70,000,000 | 55.72% | 6.99% | 3.89% |
| Preferred Stock | 1,858,200 | 1.48% | 6.90% | 0.10% |
| Common Equity | $53,771,022 | 42.80% | 10.75% | 4.60% |
| Total Capital | $125,629,222 | 100.00% | | 8.59% |
| Weighted Cost of | | | | |
| Debt | | | | 3.89% |
| Equity | | | | 4.70% |
| Cost of Capital | | | | 8.59% |

<----------PER COMPANY - ADJUSTED---------->

| | PRINCIPAL | PERCENTAGE | COST | RATE OF RETURN |
|---|---|---|---|---|
| Long-Term Debt | $70,000,000 | 55.72% | 6.99% | 3.89% |
| Preferred Stock | 1,858,200 | 1.48% | 6.90% | 0.10% |
| Common Equity | 53,771,022 | 42.80% | 10.75% | 4.60% |
| Total Capital | $125,629,222 | 100.00% | | 8.59% |
| Weighted Cost of | | | | |
| Debt | | | | 3.89% |
| Equity | | | | 4.70% |
| Cost of Capital | | | | 8.59% |

<----------PER ORDER---------->

| | PRINCIPAL | PERCENTAGE | COST | RATE OF RETURN |
|---|---|---|---|---|
| Long-Term Debt | $70,000,000 | 55.72% | 6.99% | 3.89% |
| Preferred Stock | 1,858,200 | 1.48% | 6.90% | 0.10% |
| Common Equity | 53,771,022 | 42.80% | 10.25% | 4.39% |
| Total Capital | $125,629,222 | 100.00% | | 8.38% |
| Weighted Cost of | | | | |
| Debt | | | | 3.89% |
| Equity | | | | 4.49% |
| Cost of Capital | | | | 8.38% |

F. Schedule 6

CASH WORKING CAPITAL

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| Other O&M Cash Working Capital | $8,002,293 | (139,809) | (176,787) | $7,685,697 |
| Cash Working Capital Allowance (Total times 37.35/365) * | $818,865 | (14,306) | (18,090) | $786,468 |
| Total Cash Working Capital | $818,865 | ($14,306) | ($18,090) | $786,468 |

G. Schedule 7

TAXES OTHER THAN INCOME TAXES

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| **Property Taxes** | $925,205 | $0 | ($9,391) | $915,814 |
| Less Property Taxes Capitalized | (8,226) | 0 | 0 | (8,226) |
| Less Internal Transmission | 96,293 | 0 | (1,102) | 95,191 |
| Total Property Taxes | 820,686 | 0 | (8,289) | 812,397 |
| | | | | |
| **Payroll Taxes** [1] | | | | |
| FICA Taxes | $181,013 | (13,036) | $0 | $167,977 |
| Federal Unemployment Taxes | 2,188 | 0 | 0 | 2,188 |
| State Unemployment Taxes | 11,738 | 0 | 0 | 11,738 |
| Mass Health Insurance | 649 | 0 | 0 | 649 |
| Payroll Taxes Capitalized | (75,605) | 0 | 0 | (75,605) |
| Less Internal Transmission | 8,310 | 0 | 0 | 8,310 |
| Total Payroll Taxes | 111,673 | (13,036) | 0 | 98,637 |
| | | | | |
| **Property and Payroll Taxes** | 932,359 | (13,036) | (8,289) | 911,034 |
| Adjustment to Distribution Other Taxes | (242) | 0 | 0 | (242) |
| Sub-Total | $932,601 | ($13,036) | ($8,289) | $911,276 |

Note: The Company aggregated all of its property and payroll tax adjustments on a net basis in its initial filing, but disaggregated them by expense item in its revised schedules. The Department has relied upon the payroll and property tax data provided in the Company's Schedule RT-6, and assigned all adjustments in the "Company Adjustments" column to FICA taxes.

H. Schedule 8

INCOME TAXES

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| Rate Base | $52,055,725 | ($14,306) | ($1,550,465) | $50,490,953 |
| Return on Rate Base | 4,471,587 | (1,229) | (239,216) | 4,231,142 |
| LESS: | | | | |
| Interest Expense | 2,024,968 | (557) | (60,313) | 1,964,098 |
| Total deductions | 2,024,968 | (557) | (60,313) | 1,964,098 |
| Taxable Income Base | 2,446,619 | (672) | (178,903) | 2,267,044 |
| Taxable Income (Net Income/.6171) | 3,964,704 | (1,090) | (289,909) | 3,673,706 |
| Mass Franchise Tax (6.5 Percent) | 257,706 | (71) | (18,844) | 238,791 |
| Federal Taxable Income | 3,706,999 | (1,019) | (271,065) | 3,434,915 |
| Federal Income Tax Calculated (34.0 percent) | 1,260,380 | (346) | (92,162) | 1,167,871 |
| Total Income Taxes Calculated | 1,518,085 | (417) | (111,006) | 1,406,662 |
| **Total Income Taxes** | $1,518,085 | ($417) | ($111,006) | $1,406,662 |

I. Schedule 9

REVENUES

| | PER COMPANY | COMPANY ADJUSTMENT | DPU ADJUSTMENT | PER ORDER |
|---|---|---|---|---|
| **Operating Revenues** | $70,183,147 | $0 | $0 | $70,183,147 |
| Less: Pension/PBOP Adjust. Factor | 568,920 | 0 | 0 | 568,920 |
| External Transmission | 6,289,091 | 0 | 0 | 6,289,091 |
| Transition Charge | 11,471,062 | 0 | 0 | 11,471,062 |
| Default Service | 33,096,427 | 0 | 0 | 33,096,427 |
| Energy Efficiency | 1,092,268 | 0 | 0 | 1,092,268 |
| Test Year Operating Revenues per books | 17,675,379 | 0 | 0 | 17,675,379 |
| Less Internal Transmission | 1,894,702 | 0 | 0 | 1,894,702 |
| **Distribution Base Revenues** | 15,980,677 | 0 | 0 | 15,980,677 |
| **Adjustment to Distribution Base Revenues** | (266,507) | 0 | 233,191 | (33,316) |
| **Total Distribution Base Revenues** | $15,714,170 | | $233,191 | $15,947,361 |
| | | | | |
| **Other Operating Revenues** | $259,034 | 0 | 0 | $259,034 |
| Less: Transition Charge | 4,037 | 0 | 0 | 4,037 |
| Other Operating Revenues per books | 254,997 | 0 | 0 | 254,997 |
| Less: Water Heater Rental | 62,618 | 0 | 0 | 62,618 |
| **Operating Revenues** | 192,379 | 0 | 0 | 192,379 |
| Total Other Operating Revenues | $192,379 | $0 | $0 | $192,379 |
| | | | | |
| **Total Revenues** | $16,173,056 | $0 | $0 | $16,173,056 |

J. Schedule 10

REVENUE INCREASE PER ORDER $2,116,682

| | PER COSS | | | | Department Approved | Department Approved | | | | | | | | Final | Final |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Proposed COSS Target | Current | Proposed Deficiency at | Share of | Revenue | Revenue | Increase Indicated for | 125 Percent Cap on Max. | Minimum | Target Before | Reductions Due to | Un-capped | Base Revenue | Base % Revenue |
| | Revenue | Revenue | ERDR | Increase | Increase | Target | ERDR | Increase | (No Decrease) | Subsidies | Caps | Targets | Target | Increase |
| Rate Class | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| Residential | $11,083,780 | $7,973,836 | $3,109,944 | 110.88% | $2,346,833 | $10,320,789 | 28.4% | $9,279,676 | $7,973,836 | $9,279,676 | $1,041,082 | $0 | $9,279,676 | 16.4% |
| Small C/I | $565,827 | $389,894 | $175,933 | 6.27% | $132,769 | $522,663 | 34.1% | $453,746 | $389,894 | $453,746 | $68,917 | $0 | $453,746 | 16.4% |
| Medium C/I | $3,849,353 | $4,048,423 | -$199,070 | -7.10% | -$150,228 | $3,898,194 | -3.7% | $4,711,415 | $4,048,423 | $3,898,194 | $0 | $3,898,194 | $4,667,002 | 15.3% |
| Large C/I | $2,638,207 | $3,296,604 | -$658,397 | -23.46% | -$497,013 | $2,799,791 | -15.1% | $3,836,708 | $3,296,604 | $2,799,791 | $0 | $2,799,791 | $3,351,971 | 1.7% |
| StreetLight | $623,283 | $446,763 | $176,520 | 13.42% | $284,142 | $730,905 | 63.6% | $519,927 | $446,763 | $519,927 | $210,978 | $0 | $519,927 | 16.4% |
| Total Company | $18,960,450 | $16,155,720 | $2,804,730 | 100% | $2,116,802 | $18,272,322 | 13.1% | $18,801,473 | $16,155,720 | $16,951,334 | $1,320,988 | $6,697,985 | $18,272,322 | 13.1% |
| | | | | | | | 13.1% | | | | | | | |

**NOTES:**

(1) Exh. Until-JLH-1, Sch. JLH-4, at 1; per Order, $130,842 ERR test year level (RR-AG-13) removed, prorated to rate classes based on COSS (Exh. Until-JLH-1, Sch. JLH-2, at 12, line 21);
(2) Exh. Until-JLH-1, Sch. JLH-4, at 1, amount includes $432,406 in RAAF revenues ($366,962 + $65,444);
per Order, $130,842 ERR test year level (RR-AG-13) removed, prorated to rate classes based on COSS (Exh. Until-JLH-1, Sch. JLH-2, at 12, line 21;
$233,191 added to the current revenue of GD-3 per Order;
(3) Column (1) - Column (2);
(4) Column (3)/Column (3) Total Company;
(5) Column (4) * Revenue Increase per Order;
(6) Column (2) + Column (5);
(7) Column (6)/Column (2)-1;
(8) Column (2) * (1+ 1.25 * Column (7) Total Company;
(9) Column (2);
(10) If Column (6) is greater than Column (8) then Column (8), otherwise Column (6);
(11) Column (6) - Column (10);
(12) Column (12) if Column (12) value is less than Column (8) value;
(13) If Column (12) is not 0, then Column (12) is increased by Column (11) Total Company * Column (12)/Column (12) Total Company.
If Column (12) is 0, then Column (10);
(14) Column (13)/Column (2)-1

THIS SCHEDULE IS FOR ILLUSTRATIVE PURPOSES ONLY.

## IX. ORDER

Accordingly, after due notice, hearing and consideration, it is

ORDERED: That the tariffs M.D.P.U. No. 151, M.D.P.U. No. 152, M.D.P.U. No. 153, M.D.P.U. No. 154, M.D.P.U. No. 155 filed by Fitchburg Gas and Electric Light Company on August 17, 2007, to become effective September 1, 2007, are DISALLOWED; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall file new schedules of rates and charges designed to increase annual electric base rate revenues by $2,116,602; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall file all rates and charges required by this Order and shall design all rates in compliance with this Order; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall comply with all other orders and directives contained herein; and it is

FURTHER ORDERED: That the new rates shall apply to electricity consumed on or after the date of this Order, but unless otherwise ordered by the Department, shall not become effective earlier than seven days after the rates are filed with supporting data demonstrating that such rates comply with this Order.

By Order of the Department,

/s/
Paul J. Hibbard, Chairman

/s/
W. Robert Keating, Commissioner

/s/
Tim Woolf, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.